



Welcome to the Anthropocene!

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Abstracts

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WG 2 Practice theory

Harmonies in detailed planning of energy efficient housing

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Abstract

In this paper, we look into how urban governments take part in the on-going reproduction of social practices through their work with development of detailed planning of new urban development areas. Through a case study of a detailed planning process aimed at promoting energy efficiency in new housings, we show how the urban government tends to emphasise technological substitution of one heating system with another. This represent a conscious strategy for enabling harmony in terms of the prevailing ideas of comfort of the dwellers, while at the same time challenging the technological development in the building industry. We analyse how this harmony builds on a special inherent imaginary of the practitioners, which is neither investigated nor challenged during the planning and implementation process. On the basis of these findings, we discuss what abilities that urban governments have to deliberately promote development of low-carbon practices.

Competing notions of social change and intervention in local climate change governance: the case of Copenhagen

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Abstract

This paper is based on an ethnographic fieldwork studying the production of a local agenda 21-plan within the municipality of Copenhagen. Resulting from a thorough process of citizen involvement and research input, 17 activities were included in the final agenda 21-plan, all aiming at “*creating new options for action*” for citizens in relation to sustainable practices. The paper uses the agenda 21-plan as a starting point for looking at how policy-makers think of their own role in relation to creating social change, how they conceptualise social change and how this translate into specific problem definitions, solutions and intervention strategies. The paper argues that the practice of policy-making reproduces ideas of normality rather than challenging these thus solidifying both their own doings as well as solidifying the taken-for-granted way of life outside the municipality. The paper also finds a potential, however, in the competing notions of social change and intervention where streams of thinking acknowledging the complexity of social life is also present, and discusses the potential of systematising such tendencies.

Keywords: Practice theory, local agenda 21, policy-making, interventions, social change

Environmental non-governmental certification: adoption, compliance of voluntary standards and their effects for the enterprises

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Keywords: private environmental governance, chain of custody certification, expectations, governance mechanisms.

Abstract

Many voluntary environmental certification schemes were created in the last decades. (Jordan et al., 2003a, b) The phenomenon is that majority of them include non-governmental standards and the practices embedded in these standards may easily transfer the national borders. This paper presents the results of an empirical research which seeks to answer the question: what makes the enterprises to adopt non-governmental environmental standards and to change their practices when complying with the rules? Did the expectations were justified? The paper demonstrates that Western standards related to the environmentally friendly production and the chain of custody (CoC) practices overspill borders and influence the patterns of practices in the country where such standards didn't exist before.

A quantitative research method was employed to answer the research question. Empirical data was collected by the survey which was conducted during July and September 2012 in Lithuania. Respondents (N=90) were enterprises which are certified against one of the three private environmental standards: for the forestry and logging, fishing and aquaculture, and production of textiles standards. All of them being transnational, non-governmental, very popular globally, and operating in the similar manner allows making more generalized conclusions.

The research revealed that majority of the enterprises adopted these standards due to the external forces only – always being the outside agents such as foreign clients and partners. The effects of the standards were measured by comparing the adoption factors (here called expectations) and the satisfaction after the adoption.

Living with the New Nordic Diet 3

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Abstract

Purpose – Based on *New Nordic Cuisine* and Nordic dietary recommendations, the research Centre OPUS has developed a healthy, sustainable and tasty New Nordic Diet (NND) with the goal of improving public health in Denmark. In order to determine the health potential of the NND, a six month, controlled dietary intervention trial was conducted, in which participants procured NND foods at a specially designed intervention-supermarket and prepared and consumed NND meals in their homes.

Design/methodology/approach – A qualitative sociological study was conducted among 16 intervention participants in order to explore whether and how they appropriated this diet into their 17 everyday food practices.

Findings – Participants appropriated the NND by becoming co-producers of this diet, tailoring it to accord with individual preferences and the demands of everyday life. Findings indicate that while the taste of the NND is likely to appeal to wider groups of consumers, the tasks of food procurement and preparation are likely to constitute barriers to its adoption. The strictly controlled intervention setting enabled participants to learn how to comply with dietary composition despite their deviations from given menu-plans and recipes. The extent to which such compliance would be achieved outside this context by other consumers is questioned. Further studies are needed to determine whether more widespread consumption of the NND would in practice comply with Nordic dietary recommendations.

Originality/value – The study provides insights relevant to health agencies, public health researchers and food companies regarding consumer appropriation of a dietary system, the health benefits of which are dependent upon dietary compliance.

Exploring veganism as a social innovation in eating practices

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Abstract

Given that current global temperatures are warmer than during 75% of the Holocene temperature history (Marcott *et. al.* 2013) and that average global temperatures are now approximately 1⁰C above pre-industrial levels it seems a fair assessment that we are in transition toward an Anthropocene. In the absence of policy action toward required systemic infrastructural change to avert what may be a 4⁰C rise by 2061 (see Betts *et al.* 2011), this paper explores how the lowest carbon eating practice, veganism (Berners-Lee *et. al.* 2012) can be understood through the lens of practice theory (e.g. Shove *et.al.* 2012).

Although perhaps unlikely that Western countries will see a wholesale move to vegetarianism or veganism, this paper assumes there is scope for increasing the number of such practitioners, and that this can help aid the reduction in meat/dairy consumption by the majority and the erosion of the centrality of animal consumption. This is a transition that is repeatedly called upon in climate change mitigation policy discourse. Steps towards the normalisation of plant-based eating are explored via attentiveness to the elements (competence, materiality and meaning) of vegan practice. This paper also draws upon research in its early stages that explores how practitioners in two UK cities come together to ‘do veganism’ and how they are engaged in forms of social innovation that seek to disrupt the everyday taken for granted nature of meat and dairy consumption. Finally I consider how practice theory may provide clues toward the accelerated adoption of more sustainable eating practices.

Perceptions of bottled water in the Finnish context

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Abstract

Several studies show that tap water is at least of the same quality as bottled water. Furthermore, there has been a lot of discussion on the environmental effects of bottled water in comparison to tap water. However, the consumption rate of bottled water has been on the rise in Finland, as well as in many other countries, where safe water is readily available from the tap. The purpose of this paper is to explore perceptions and practices Finns have of bottled water to better understand this phenomenon. The study is based on a qualitative content analysis of online discussions.

Based on the results, it seems that the juxtaposition of bottled water and tap water is at least partly misleading. Bottled water is consumed as a substitute of other soft drinks. Furthermore, it can be perceived as an irrational choice in general, but in specific situations and related to specific practices its consumption is perceived as justified. In these cases, the consumption is more often related to the convenience of the bottle, rather than the characteristics of the water itself. In addition, the choice of water is in some instances related to trust.

In conclusion, bottled water is not yet consumed in a large scale in Finland. Most people prefer tap water to bottled water. Nevertheless, if it is considered important to limit the consumption of bottled water, it might prove useful to listen more carefully to people's concerns about tap water and focus on analysing practices related to it.

Antibiotics and air-conditioning: Introducing social meanings into problematic health and household cooling practices

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Abstract

Antibiotics and air-conditioners are two technologies from contrasting sectors that have both been traditionally framed around individual health and comfort needs, despite their continued usage generating serious social health problems. The liberal use of antibiotics is causing resistance that leads to previously treatable conditions becoming life threatening. Similarly, the promotion of air-conditioning as the primary method of maintaining thermal comfort in Australia is contributing towards rising peak demand and electricity price increases which place an inequitable burden on heat-stressed vulnerable households. Internationally in the health sector, campaigns are attempting to reframe the meanings of professional medical practice to emphasise the health of all both now and into the future by limiting antibiotic prescriptions to satisfy sometimes unwarranted short-term individual demands.

Resonating with this example, this paper draws on an analysis of 80 in-depth interviews conducted with Australian households to consider the possibility of reframing the meanings of air-conditioned cooling to emphasise the social health implications of engaging in this practice during peak times. We find that when householders understand peak demand, the potential for peak demand to affect the health of elderly or chronically ill households is considered and alternative cooling strategies are discussed as acceptable alternatives. Like the social reframing of antibiotics in medical practice, we conclude that the problem of peak electricity demand could be reduced by emphasising the social health ‘limits’ of air-conditioned cooling on very hot days.

Keywords: energy consumption, energy policy, demand management, household cooling, social practices

Inside the eco-home: using video to understand the implications of innovative housing

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Abstract

Video, considered as a method of research and the home, considered as an object for social analysis, both suggest a twin focus on practice and identity. Video records practice through showing how a home is used by a particular respondent at a particular time. Equally, however, video communicates the appearance and behaviour of that person to the self and to others. Video is therefore intimately connected to identity. Practice and identity are also, in turn, related to different aspects of the home- as space and as place, as a field of activity and as a visual object. Detailed qualitative research favours the detailed and the particular. In interpreting the detail, however, the context should also be considered. In the case of energy use and housing, considering the context means essentially considering issues relating to class, inequality and tenure.

Co-evolution of heating and hot water practices: rigidity, disruptions, and systemic challenges

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Abstract

Challenges of energy security, low carbon transitions, and electricity network constraints have led to a shift to new, more efficient forms of technology to provide household energy services. In the dynamics of 'co-evolution', the habits and expectations of households, and the technologies and objects they use interact with and mutually shape each other, along with arrangements associated with large-scale socio-technical infrastructures.

Drawing on findings from qualitative interviews and 'energy tours' with households—as part of a large interdisciplinary smart grid research project—this paper investigates the interplay between technological interventions and everyday practices and socio-cultural norms. It studies the evolution and impact of domestic heating and hot water provision following the installation of air source heat pumps in households in the North of England, supplied through industry-government. The paper questions whether the introduction of new technology and information accompanying it 'loosen' daily household routines and habits or foster pervasive socio-technical change. Pathways towards the potential rearrangement of practices are disrupted not only by rigidity in conventions and habits around heating and hot water practices, but also commercial arrangements and systems of provision. Our paper demonstrates how these systemic arrangements are co-implicated in changing patterns of practices.

Keywords: co-evolution, electricity, heat pump, household practices, socio-technical

Test-drivers considerations of EV-adoption – the construction of meaningful driving

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Abstract

This article considers households perceptions about adopting electric vehicles into their everyday life. The research focuses on how electric vehicles, as an expected sustainable technology, are feasible to test-drivers everyday life today. The basic assumption is that everyday life is the foundation of change and development of sustainable technologies and consumption. Therefore new everyday consumption patterns are crucial to face the future challenge about including more renewable energy sources in the energy system. Thus, electric vehicles are envisioned as a potential solution to peak-shave through flexible energy management in the households.

Overall, the qualitative case-study demonstrates how test-drivers driving practices are constituted by the maintenance social practices around, and the persistent constructions of everyday life. The empirical material consists of both qualitative individual interviews and focus group interviews with test-drivers participating in a huge Danish demonstration project called ‘test-an-EV’. Inherent article emphasis ‘the element of meaning’, gathered from the social practice theory approach, to highlight the sense of meaning among test-drivers to acknowledge why this expected peak-shaving technology isn’t adoptable and feasible to households everyday today.

Keywords: Everyday life, driving practices, adoption, sustainable consumption, construction of meaning

WG 3 Interplay between local authorities and citizens in environmental governance

Enhancing incentives for local actors to participate in water management: linking responsibility, trust and information

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Abstract

Participation of actors is a central tenet in the drive towards a more holistic, flexible and adaptive approach to water governance worldwide. For example, the EU Water Framework Directive (WFD) explicitly emphasises that its successful implementation relies on participation – specifically, information, consultation and active involvement of the public, including users. Numerous studies on participation in water management have generated knowledge on the potential of participatory techniques to actively involve local actors in fora designed to foster action and learning. However, incentives for encouraging local actors to participate in the implementation of water management measures are not always clear. In this paper, however, we explore incentives for encouraging the active involvement of one particular group of local actors in water management, namely farmers. Nutrient-leakage from agricultural land must be tackled in order to reduce eutrophication of European water bodies and wetland creation is suggested as a potentially effective measure. This paper draws on the results of surveys, questionnaires, interviews and meetings from two Swedish case study areas involving farmers in water management. The results reveal factors that are important for enhancing incentives for farmers to participate, beyond the economic and regulatory incentives. First, farmers require appropriate local and regional water-management information, and benefits of wetland as a measure. Second, a clear allocation of responsibility among local and regional actors, essentially outlining who does what, is necessary. And third, trust between users and other actors, such as municipalities, is crucial for creating the basis for reliable information and allocation of responsibilities. We suggest that consideration of these factors in water governance can lead towards more robust forms for participation, inducing real action and, consequentially, improved water quality.

Keywords: WFD implementation, catchment-based management, agriculture, wetlands

Citizens in sustainable transitions – intermediaries facilitating new platforms for learning

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Abstract

The paper explores how local public authorities can support and facilitate citizens' participation and learning in sustainable transition in urban neighbourhoods, by supporting local intermediaries. The role of intermediaries can be performed by a variety of actors such as public housing associations; NGO's, or semi public institutions. Our claim is that intermediary actors have the potential to facilitate new platforms for citizens' participation in urban sustainable transition due to their particular role in between public authorities and civil society.

The key question of the paper is how the intermediary actors facilitate citizens' participatory processes in sustainable urban transitions, and the paper explores the concept of institutional capacity building as a way to develop learning processes and new practises? The aim is to analyse approaches of creating platforms for involving citizens and thereby facilitating new actor configurations in urban social-technical systems. This perspective may contribute to the study of transition processes that so far have not studied citizens' roles in depth.

Based on discussions of theories on transition and institutional capacity building, the article discusses the mobilisation of citizens through social learning processes and how the development of new platforms plays a part in societal transitions. Empirically, the article is based on case studies from Denmark of local environmental centres, green guides etc. that have performed innovative forms of involving citizens in sustainable urban development. The empirical material of the paper is based on interviews as well as document analysis collected during the last decade.

Keywords: sustainable transition, intermediaries, institutional designs for participation.

Public engagement and governmentality: the case of climate change

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Moves towards public participation and citizen involvement point on the one hand towards a widening of democracy by engaging actors from civil society. On the other hand, these moves can be said to represent new and possibly more efficient ways of governing citizens by means of letting them exercise their own freedom (Rose 1999). Following this line of thought, this paper investigates how forms of public participation in a local climate mitigation project can be viewed as an instance of governmentality in the sense of “groups or individuals shaping their own conduct or the conduct of others” (Walters 2012: 11) through participation and involvement.

Empirically, the paper focuses on a Danish municipal initiative towards climate change mitigation and sustainable growth, the Energy Town project in Frederikshavn in northern Denmark, which has set the goal of 100 % reliance on renewable energy by 2015.

Analytically, we examine a series of six meetings between citizens and municipality representatives from a discourse analytical perspective (Fairclough 2003, Foucault 1969). More specifically, we focus on the continuous co-construction and (de)stabilization of citizen identities as ‘participatory subjects’ during the meetings. This is framed by an analysis of the ways in which municipality representatives reason about citizen involvement and establish participatory subject positions for citizens in two semi-structured interviews before and after the series of meetings.

Keywords: Climate change, governmentality, public engagement, discourse analysis

Climate change and citizen participation. Does a new challenge call for a new theory?

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Abstract

This paper will put forward two tentative arguments: 1) Firstly, it will be argued that that current changes in the discourse on citizen participation from a focus on “citizen involvement”, to “citizen participation” and further to “citizen innovation” is linked to a qualitative shift in citizen participation, where governments, increasingly faced with problems of how to engage, motivate and incite people to voluntarily shift their behavior in terms of for example energy consumption (to mitigate climate change), or food consumption (to combat obesity), have to develop what some has called new “policy arrangements” (Tatenhove & Leroy 2009), others new “technologies of government” (Dean 1999). This argument will be located within the trajectory of citizen participation in environmental policies, which has moved from reactive to more reflexive and pro-active ways of participation, and where it has been possible to see the environmental policy domain as very much a laboratory for experiments with political participation. 2) Secondly, it will be argued that this development raises the question of whether a new theoretical framework is needed in order to deal with the question of citizen participation a part of this new “technology of government”. (Post) actor-network theory is seen as a one possible option, as it posits a new approach to discussing the “policy arrangements” within the policy domain of climate change. Thus, in line with the idea of the environmental policy domain as a laboratory for experiments with citizen participation, the insights suggested by actor-network theory is that the outcome of political processes actively involving citizens will always be precarious and unpredictable, the result depending on the participating citizens’ various personal resources, ideas, and idiosyncrasies. The new policy arrangement is therefore to a big extent shaped in the implementation phase, by the citizens involved *and* the representatives of local government facilitating the participation processes.

Ecosystem-based approaches to Climate Adaptation – possibilities and conflicts in urban areas

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Abstract

Effects of climate change are particularly challenging in urban areas. The high concentration of built environment and people lead to heat islands and a higher rate and volume of surface runoff of rainwater. Meanwhile, humanity is rapidly urbanising and there are significant technical, social and institutional vulnerabilities due to uncertainties and unpredictability in climate impacts.

Policymakers and urban adaptation strategies are increasingly acknowledging the potential of working actively with citizens in developing adaptation actions, and of including approaches that utilise urban nature as a resource, i.e. the ecosystem services presented by nature's capacity to absorb and control impacts of climate change. Eco-system service approaches in addition offer a number of co-benefits such as aesthetics, biodiversity. Using participation-based eco-system services is potentially more economically, socially and ecologically just and efficient compared to focusing exclusively on technical solutions.

In this study, we thus investigate the prospects and conflicts of systematically applying an ecosystem based approach in a case of urban adaptation to climate change, the Municipality of Copenhagen. Focussing on green roofs, we centre on how the city promotes a green infrastructure in adaptation initiatives, in ways that integrate citizens' needs and wants. The analysis addresses questions related to the *prospects* of integrating ecosystem-based climate change adaptation in urban policies on a participatory basis, and to areas of potential *conflicts* between ecosystem-based approaches and other drivers of urban development in cities, such as the increasing urbanisation, use of scarce urban land and expanding built environment

Policy makers' views of urban transport policies

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Abstract

Transport policy is increasingly concerned with the reduction of CO₂ emissions. Most of the policies aim at getting people to choose sustainable modes of transport. However, the use of car has not been reduced in the Helsinki Metropolitan Area, and more effective measures are needed. This study focuses on the way policy-makers regard instruments. The views they have e.g., on instruments' impact on behaviour may be quite different from that held by researchers. The policy-makers also make assumptions about the public acceptability of measures. They therefore pay a lot of attention to the citizens and their behaviour, or rather to their own assumptions about the citizens. They may also identify other barriers to the uptake of effective policies. In this research, the views of policy-makers in the Helsinki Metropolitan Area are studied, regarding the effectiveness and acceptability of various transport policies. Also other criteria the policy-makers use in judging alternative measures, as well as the barriers they perceive in selecting effective ones, are examined. The views are collected using interviews and a questionnaire, where the respondents estimate the effectiveness and acceptability of various instruments, as well as which instruments would be in use in the Helsinki Area in 2025 in probable and preferable futures. Understanding the policy-makers' views is a first step in overcoming the barriers, and a first phase in a project that tries to bring together various stakeholders to advance collaborative transport policy-making.

Closed-system cities? Exploring interactions between local authorities and other key actors to develop resource-balanced cities: the case of the Rotterdam Energy Approach to Planning

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Abstract

Concerning climate change alone, cities and urban areas constitute between 40- 70% of GHG emissions. As cities expand and environmental challenges multiply, linear resource-consumption-waste cycles need to be broken, with outputs cycled back as inputs. Following 20 years of industrial symbiosis, this paper adopts an urban symbiosis lens to explore how cities can better mimic natural systems concerning resource consumption and waste production, as well as appropriate methods to communicate and implement such approaches. We assume that while local authorities play a minor role in industrial symbiosis, they play a more dominant role in urban symbiosis, in particular in terms of their interactions with stakeholders and citizens. Specific attention is placed on geographic boundaries of different resource streams, government policy interventions and local partnerships. An in-depth analysis of Rotterdam's Energy Approach to Planning (REAP) demonstrates that REAP attempts to incorporate by-product (re)use of energy and water in an urban area, using by-products as resources for different urban functions. REAP is an urban planning approach, led by Rotterdam's local authority, in partnership with key actors (e.g. architects, academic institutions, developers, business owners, citizens) assisting its development and implementation. While technically viable, its success depends on collaboration with these actors to share information and resources. This paper explores how the local authority engages with local businesses and citizens to move REAP forward. The conclusion addresses similarities and differences between strategies of cooperation with local authorities and key actors in industrial and urban symbiosis, drawing lessons for governing urban resources.

First World Petro-Politics and Participation: The Northern Gateway Pipeline

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Abstract

The Enbridge Northern Gateway Pipeline (NGP) is the proposed link from the Alberta Tar Sands over 1177 km to BC coast for Asian-bound oil super-tankers, presenting unique risks; crosses 1000+ salmon bearing waterways, tunnelling two mountains, navigating the world's 4th most dangerous waterway along the Great Bear Rainforest, and through 30 Indigenous territories. The Joint Review Panel (JRP) is a public consultation reviewing the project in 'a careful and precautionary manner,' consulting citizens and Aboriginal Groups to determine NGP's necessity, public interest, and environmental impacts, to produce recommendations. Such panels can be beneficial; however, new legislation means decision-making lies with Neoliberal-oriented Federal government who can ignore the report. Extractive industries have disproportionate access and influence over Canadian policy, so though consultations occur, the structures inhibit citizen's capacity to contest privileged interests. Many Indigenous Peoples, citizens, municipalities, unions, scientists, and economists have denounced the JRPs legitimacy, promising legal action and vowing to fight NGP on the ground. FPIC and Deliberative Democracy were used to analyze the JRP and I argue participation is not synonymous with meaningful negotiation: participation is being included at the table but fails to define the value of input, resulting in a passive exercise of agency - relegated to tokenism or worse, spectatorship. Fairness, access and justice should be minimum standards in consultations, but preoccupations with legalism and procedures attempt to realize these standards in complex pluralistic, multicultural, post-colonial societies in practice, and fail. Legal mechanisms do not automatically provide equality and procedural elements can facilitate systemic exclusion. Relying on fair procedures then denying the results of difficult negotiations negates the worth of challenging and costly participation. Canada's national vision must move beyond extractive capitalism; The unified opposition not viewed as adversarial, but instead legitimizing a mandate to support transitioning towards a green future.

Experiences from environment and climate ambassador schemes in Danish municipalities

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Many Danish municipalities have committed themselves to reduce the climate impact and other environmental impacts of the municipality. Some of these municipalities have developed so-called 'ambassador schemes' as part of their climate and environmental obligations.

The paper analyses the experiences from four Danish municipalities, which have developed such schemes, and identifies similarities and differences in activities and results among the schemes based on the way they are organized and the roles knowledge development, facilitation and navigation are playing in the schemes. The common element of the schemes is the role a group of municipal managers or employees have as responsible of initiating climate and environmental activities within a certain municipal institution. A coordinator of the scheme is employed within the part of the administration where the ambassador scheme is anchored. The differences among the schemes are related to the way the users of the institutions are involved (the school children, the users of a sport facility etc.), the extent of networking among the ambassadors, and whether the focus of the scheme mainly is on energy savings or the scheme has a broader focus on several Agenda 21 fields, like water and waste. Some schemes have been initiated as a top-down process from the central municipal administration and some have been initiated through bottom-up activities.

The analyses in the paper are based on theories about communicative action and structural transformation of the public sphere (Habermas), collective learning from everyday activities (Negt) and professionals as political reflective navigators (Broberg & Hermund).

The Potential of Local Knowledge in Local Climate Management

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Facing the challenges of climate changes, governments are forced to think of new ways of public management in order to address the problems of high CO₂ emissions caused by companies, public institutions and citizens. The last decades have shown that traditional approaches to change environmental problems, dominated by professionals, fail to meet their purpose. Political expert-designed initiatives have little or a short-time effect on environmental behaviour, and some initiatives have problems and conflicts related to stakeholders, when they are implemented. Some examples are communication campaigns created to change environmental behaviour or mitigations plans that force people to change behaviour through regulation.

This knowledge calls for more collaborative approaches to environmental management, where professionals collaborate with other stakeholders including non-professionals to design and implement new initiatives that succeed to reduce CO₂ emissions. The *climate ambassador network* is one of the innovative collaborative approaches in local climate management in Denmark. The ambassadors are public employees, employed in local public institutions like schools and eldercare that collaborate with the environmental administration in order to create energy savings and thereby decrease the energy consumptions of the local government.

A case study of one of these ambassador networks is presented, a network that has created significant energy savings since its beginning in 2009. The message is that the ambassador network as collaborative approach is beneficial for the local administration in many ways, because the public employees bring local knowledge about their work places into the environmental management.

Energy transition on local level – the case of the renewable energy community Wolfhagen (GER)

Stefanie Baasch

Abstract

The middle-town Wolfhagen (12.800 inhabitants) is a frontrunner renewable energy community (REC) in Germany. The presentation highlights the results of a multi-method analysis (document and participative network analysis, stakeholder interviews) which has been conducted to figure out the drivers and barriers in the energy transition process.

During the transition process the city council made a number of decisions which were not in the mainstream of current energy or local policies. For example, Wolfhagen was the first community in Germany which started to remunicipalize its power grids in 2006. Locally owned power grids are one essential aspect for local self-sufficient renewable energy politics because it enables or at least facilitates the feeding of the locally produced power into the grid. In the near future – in 2015 - the city aims to cover its entire communal energy needs (households, commercial and industrial businesses) exclusively with locally generated renewable power plants. Beside the positive effects on the communal climate footprint, positive effects on the local economy and an increase in local value should be realized. In October 2010, the Federal Ministry of Education and Research awarded Wolfhagen as one of the top five German towns in energy efficiency (Energy Efficient City).

The presentation will focus on the interplays of legal changes (like the Renewable Energy Sources Act in 2000), framework conditions (e.g. economic developments, demographic change), local policies (participation, power shift) and individual motivation of key stakeholders to analyze the transition process with regard to its potential for being a transferable to other communities and regions.

The results have been created in the context of the EU FP7 Research Project InContext (<http://incontext-fp7.eu/>).

Comparative study of different models of energy renovation in private households in Denmark

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Abstract

Energy renovation in private households is considered to be an important part of the national strategy to reduce CO₂ reduction. The Danish municipalities and energy companies are two important actors approaching the problem. On the one hand, each Danish municipality has developed environmental goals and strategies to reduce CO₂ emissions, and cannot reach these goals without the active involvement of their citizens. On the other hand, energy companies are compelled by the Danish state to reduce CO₂ emissions. Danish municipalities and energy companies therefore share a common interest in convincing Danish households to reduce their energy consumption. However, they do this in multiple ways. The present paper will present and compare some of the most well-known and most successful models used in the Sønderborg, Middelfart, and Kolding municipalities.

All these projects must solve a similar range of problems regarding:

- 1) The financing of energy consultation.
- 2) The financing of the energy renovation (both with subsidies and financing bank models).
- 3) How to motivate individual households to ask for energy consultation and engage in energy renovation.
- 4) Who performs the consultation and the renovation.

The different models developed build on finding and mixing different solutions to these questions. In this process, they meet various successes and various problems, which will be presented and discussed in the paper so that future projects can learn from past experience and improve the efficiency of municipal and energy companies' approaches to reducing CO₂ emissions.

The Dilemmas of Environmental Behaviour Change: When Good Intentions Meet the Tyranny of Everyday Life

Quentin Gausset, Jens Hoff, Christian Elling Scheele & Emilie Nørregaard

Abstract

This article reviews some of the most commonly used theories concerning environmental behaviour change. It then identifies different factors usually presented as having an impact on environmental behaviour, and it tests their empirical potential for change by using survey data from three Danish municipalities, totalling 2000 respondents, and containing information on people's environmental behaviour as well as motivation to take action on climate change. In general the empirical findings lend most credibility to theories stressing the importance of altruism, social pressure, personal ethics and knowledge rather than theories relying on the maximisation of private benefits. However, when it comes to people's transportation habits we find that these are basically determined by people's social identity, making them harder to change than behaviour that has to do with shopping routines or energy savings in the home. Thus, while "soft regulations" like information campaigns or community activities can have an impact on the latter, "harder" regulations like taxes or other types of controls seem necessary in order to influence transport behaviour significantly.

How many thick TV sets can there be in the world? Recycling workers reflecting on resource flows

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Abstract

Recycling stations in Southern Sweden have gone through a radical change during the last decade: From dirty dumps to well organised stations where the public sort the material remains of their daily life and homes. At the stations, there are recycling workers whose professional roles have changed from low-status waste men to highly qualified sorters with detailed knowledge about the materials flows that follow after the sorting activities. In this study, recycling workers have been interviewed to investigate in what ways they reflect not only on their professional role, but how they perceive and reflect on the material flows that they handle in their daily work. Especially increasing and – as it seems – never ending flows of “thick” TV sets and other electronics have evoked reflection on how production, consumption and recycling is current in society. Recycling workers toil at the far end of the societal metabolism, where resource flows need to be handled for the least level of sustainability. Recycling workers also carry a pedagogical responsibility, explaining, demonstrating and gently directing the public to recycling the remains of its vast material consumption.

Key words: Recycling workers, recycling stations, material flows, societal metabolism, professional change, sustainability

WG 4 Adaptive environmental legislation in a dynamic environment

Resilience as ecosystem capability

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Abstract

Traditional understanding of environmental justice has focused on distributing environmental benefits and burdens fairly. This emphasis on distribution has characterised a great deal of environmental policies as well: favouring market-based regulatory mechanisms and allocating emission rights are examples of this strategy.

However, this understanding of environmental justice can be criticised of being too narrow:

In justice is about more than maldistribution. I argue that the concept of environmental justice must be thought through a broad concept of justice, including also issues of recognition and participation. This assertion is not only theoretical but has practical consequences, some of which will be discussed in the article.

The main objective of this paper is to show through conceptual analysis that the extended capabilities approach, which also offers the required kind of broader justice theory, helps to link together the notions of capabilities, resilience, and planetary boundaries. I suggest that resilience can be understood as the central capability of ecosystem, and consequently, this understanding helps to create more holistic and preventive environmental policymaking tools.

I also discuss how policies aiming to ensure or improve ecosystem resilience also consider the aspects of recognition and participation better than many traditional approaches.

keywords: extended capabilities approach, environmental justice, ecological justice, ecosystems

Changing Paradigms: Towards an Integrated Ecosocial Policy

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Abstract

We live in the Anthropocene era, where human action has an unforeseen impact on global ecosystems. This can be observed, for instance, in climate change, in loss of biodiversity and in the acidification of the oceans. Little attention is given to the fact that the Anthropocene is caused by anthropocentric thinking, whose ideas also guide our policies. Therefore, we argue that ecologically and socially sustainable policies will not be achieved by incidental policy measures alone, but a change of paradigm is needed. In our paper we lay out the tenets of an ecocentred paradigm resting on relational and holistic thinking and deep ecology. On the basis of this paradigm, the principles, conceptions and goals specific to any given policy can be formulated, giving them a common ground and a basis for turning such policy into practice. In this paper, we apply the paradigm to social policy. Being a child of the anthropocentric paradigm, social policy necessarily conceives of wellbeing in narrow and material terms. Accordingly, social policy has the inbuilt objective to raise the standard of living – to the detriment of the ecosystem. In our paper, we discuss how a change of paradigm could affect these in-built tendencies. We formulate a multidimensional and relational conception of wellbeing (the HDLB model), which is a modification of sociologist Erik Allardt's theory of Having, Loving and Being. We illustrate how this model could provide the foundation of an integrated ecosocial policy in the case of the Finnish welfare state.

Quality in Essence: Prescribing the Ecological State of the Archipelago Sea

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Abstract

The Water Framework Directive (WFD, 2000/64/EC) sets the baseline objective of reaching *good ecological status of surface waters* by 2015. The objective is to be further defined and operationalized through the implementation mechanisms both within and between the Member States (MS). The idea is that water management is to be responsive (or adaptive) towards spatial and temporal change in the aquatic ecology. Such an ecologically sensible system may be in conflict with other regulatory ideals, such as due process of efficiency. We provide an analysis of how the good ecological status of surface waters has been implemented and enforced in a specific coastal area in the Finland, the Archipelago Sea. The analysis suggests that the regulatory thresholds of ‘good ecological status’ in surface waters are prescribed by scientific experts both at EU and national level. In these processes, ecological quality is constantly renegotiated – not always in line with the ecological approach of the WFD. Moreover, ecological orthodoxy is always to be compromised by other regulatory ideals. Finally, when the implementation of the WFD reaches the enforcement stage and environmental permit decisions, the quality standard is flexible towards the regulatory context rather than towards aquatic ecology.

Context sensibilities of ecological quality standards: The European Water Framework Directive at the Archipelago Sea

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Abstract

Regulation by ecological quality standards seeks to enhance responsiveness to changes in environmental conditions whilst leaving the means of protection open-ended. Following such logic, the European Water Framework Directive (WFD) stipulates how environmental contexts are to be made to ‘speak’ and set the basis for socially and politically context-sensitive water management. However, contexts do not pre-exist ‘out-there’, but must be specifically assembled for regulatory purposes. Doing so calls for selective work: during regulatory enforcement explicit and implicit choices must be made regarding the premises and outcomes of contextualisation. This paper analyses the progress of such fabrication when the task was to define ecological quality standards for a coastal region in Finland and to translate the standards further to policy measures. In the process, the focusing of knowledge production and the policy consultations expressed pre-assumptions about the constitution of the context of marine protection. The encounters provided platforms for further focusing and attachment. However, these negotiations proved, in part, inconsequential. The further the enforcement proceeded, the more powerfully the rules and regulations of agricultural policy dictated the context of the ecological quality standards. The findings suggest that although regulation by ecological quality standards is supposed to be based on epistemological stability and managerial flexibility, the situation may be diverse: that much negotiation and alignment is needed before the facts are settled, whilst policy-making follows a more deterministic path. At worst bids for greater adaptability may even operate as an excuse for institutional inertia.

Local legitimacy of Natura conservation values – a case from Finland

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Abstract

Current conservation policies are based on classifications of nature, and only species and areas with a given classification are protected. Nature conservation policies are largely based on a static idea of conservation, where certain areas are left untouched. This applies also to the Natura network of conservation areas in the EU. The static approach has proved insufficient in halting the biodiversity loss and it is also otherwise problematic. The implementation of the static conservation has conflicted with previous uses of the included areas and with local understanding of biodiversity. Conservation policies are always aiming at a moving target. The dynamic nature conservation approach takes the change as a starting point for conservation policy and considers the potentials of nature. Thus the time perspective of conservation expands from the past to the future, and the role of humans becomes one of an active caretaker.

In the paper I will discuss a case from Finland, where volunteer conservationists, following a dynamic conservation approach, have applied innovative restoration methods to a bird lake, making it one of the top bird areas in Finland. The restoration has however conflicted with environmental administration, as in creating conditions for diverse birdlife the volunteers have questioned the legitimacy of the values for which the lake was included in the Natura-network. I discuss the roles of different types of knowledge, possessed by the volunteers and the administration, and trust in finding flexible yet effective approaches to conservation.

Changing the rules of the game by integrating public nature values into mire conservation? A local case study of peat land protection and governance in Finland

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Abstract

Mires and peat lands cover almost 1/3 of Finnish land area. While peat is a conflicted natural resource with impacts on biodiversity and the climate it remains a significant source of heating fuel in Finland, providing 5-7% of the country's annual energy supply. Main arguments against the exploitation of peat are impacts on water quality in downstream water bodies and loss of biodiversity. This case study examines the governance process that lead to the conservation of Viurusuo mire, which is located in North-Karelia, Finland. It focuses on the arguments, interactions and forms of knowledge which have been central to its successful conservation. Viurusuo mire has gone through 18 years of conflict concerning peat production versus conservation. Local residents have been active in the initiation of the conservation process but effective argumentation for conservation required scientific knowledge. Such scientific arguments for conservation are currently based on biodiversity protection, whereas local argumentation has been found to be of little value. With the national environmental protection act under revision to provide more weight on public nature values that could improve the capacity of local arguments the study further evaluates the policy making process as part of changing governance patterns. It thereby presents how the integration of public nature values into the environmental protection act may change the role of participants and non-participants in conservation and governance discourses.

Natura 2000: Potential and pitfalls of the EU political framework for Nature Conservation

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Abstract

Establishment of protected areas (PAs) is one of the main pillars of Nature Conservation Policy (NCP) all over the world that aims to address the problem of global biodiversity loss. The main EU regulatory framework for NCP based on The Bird Directive (79/409/EEC) and The Habitat Directive (92/43/EEC), which also serves as a basis for the establishment of PAs network Natura 2000 that covers approximately 20% of the EU terrestrial surface. The aim of the network is “to assure the long-term survival of Europe's most valuable and threatened species and habitats ... to ensure that future management is sustainable, both ecologically and economically”. In turn it requires the development of participatory model with broader stakeholder engagement.

The key question this paper seeks to answer is: what are the potential strengths and pitfalls of the proposed EU model for NCP in balancing economic and biodiversity conservation interests? The paper focuses particularly on the situation in Central Eastern Europe.

From the view of policy network theory, key points of the EU model of NCP are identified and critically analyzed. The main sources for the analysis include official documents, project reports, expert notes and scholarly literature.

The paper concludes that: EU provides significant financial resources in order to tackle the problem of biodiversity loss, which includes economic incentives for local communities. However, the implementation is highly situational and depends on conflict resolution potential of concrete sites, including the ability to involve and balance interested stakeholders in policy network. Based on the conclusions, the paper will also discuss ways to proceed with empirical field studies on policy implementation within the Carpathian mountain region.

Keywords: Natura 2000, Nature Conservation Policy, European Union, Policy Network Theory

Governance and projectification: Ecological Restoration Policy in Sweden

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Abstract

ER as a policy concept is increasing in salience, both globally and in the EU, as a means for solving many of today's environmental challenges. To what extent it is being implemented is, however, mostly a national issue. ER policy is thus largely developed by Ministries of Environment, while actions are required by a range of different sector agents, such as forestry, agriculture, energy, transport and water, which are, in turn, guided by a variety of other interests and governmental instructions. Across nations implementation seems rather scattered as it appears in a myriad of restoration projects of varying size and objectives. It has been argued that such 'projectification' characterizes governance more generally. However, this assumed relationship between modes of governance and policy instrument choice has not been thoroughly empirically tested, nor has it been established to which extent non-state actors can influence this choice. This paper examines how ER policy is formulated and implemented at national level, using Sweden as empirical illustration. The study draws on textual analyses of central policy documents and on evidence from a data base of all Swedish central government-funded ER projects over the last ten year period. It discusses whether ER is conceived differently in different sectors and at different levels – from central government decrees to sectoral programmes and funding schemes. Are different sectors and/or expert groups able to influence the definition of policy objectives and which policy instruments should be employed? And does 'governance' seem to go together with certain policy instruments rather than others?

Temporary nature: a new way forward for ecological restoration in highly urbanised areas?

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Abstract

The enhancement of the Green Infrastructure in urban areas is one of the key targets of the European Commission's Biodiversity Strategy. In highly urbanised areas the strict application of nature conservation law may, paradoxically, take away many chances for the establishment of temporary nature on the large slivers of land which lie vacant waiting for future development purposes. In order to avoid all too strict land use restrictions when actually developing these vacant lots, many of them are subjected to burning, spraying and regular ploughing in order to prevent protected species and habitats to settle. The recent emergence of the concept of "temporary nature" in the Netherlands exemplifies a new approach to spur the chances for the establishment of biodiversity on such temporary unused areas. Basically, the application of the concept of temporary nature allows that, pending the realization of a project in accordance with urban planning rules, the establishment of nature is temporarily allowed by the project initiator on its lot, which later can be taken away again with a maximum legal certainty. Where the final removal of the nature might effectively run counter to the basic protection rules enshrined in the EU Birds and Habitats Directive, recent administrative practices in the Netherlands and, to a lesser extent, the Flemish Region (Belgium) illustrate that it is as such not impossible to accommodate the developer's wish for legal certainty with the strict derogation clauses included in the aforementioned directives.

Keywords: Habitats Directive, Green Infrastructure, EU environmental policy, Natura 2000

Cost-Effectiveness in Policy Designs: Reducing Nutrient Loads to Freshwater Ecosystems

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Abstract

Nutrient loads to freshwater ecosystems such as lakes, rivers and fjords can lead to eutrophication and oxygen depletion in these ecosystems. A substantial part of the nutrient load stem from cultivated land, where modern agricultural production implies use of fertilizer. Excessive fertilizer application entails nutrient leakage from the root zone, and the excess nutrient ends up in the downstream ecosystem. A number of mitigation measures can be considered to reduce nutrient leakage, changing either land use or farming practice. The measures all entail compliance costs to the involved farmers. Several policies regulating leakage from agriculture to meet nutrient reduction targets have been proposed; yet, they have different implications the distribution of the costs to different farmers. Three alternative policies are evaluated in terms of cost-effectiveness and fairness of distribution. The alternative policies are a command-and-control policy where individual areas are appointed suitable for implementation of specific measures; a uniform standard policy for N-fertilizer reduction; and a payment for environmental services scheme. The cost-effectiveness for the three policies can be markedly different, especially if the ecosystem catchment exhibits spatial heterogeneity in effects or costs of measures. The Odense Fjord Catchment is used as a case study. With spatial explicit data on effect and compliance costs from the Odense Fjord Catchment, the mitigation costs for achieving the nutrient reduction target for the Odense Fjord are derived for each of the three policies. This analysis forms the basis of a discussion and evaluation of alternative regulation initiatives with respect to over-all cost-effectiveness and distributional characteristics.

Keywords: cost-effectiveness, nutrient reduction, policy design.

Operationalizing carbon reduction – Scottish policymaking perspectives

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Abstract

This paper explores perceptions of sustainability footprint tools such as the carbon footprint within the Scottish policymaking context and its contribution to growth within the SME sector. International concern over climate change has contributed to the introduction of emissions reduction targets by the Scottish Government with ambitious legislation such as the Climate Change Act 2009 which aims to reduce 80% overall carbon emissions by 2050 and the generation of 100% of Scotland's Electricity from renewable resources by 2020 (Scottish Government 2012). Within the Scotland its devolved government is supported by two key actors in the policymaking landscape the Scottish Environmental Protection Agency and Scottish Business in the Community a non-governmental organisation. Uniquely Scotland is pioneering the use of "consumption based" emissions methodology and the application of the environmentally extended input-output analysis method which takes into account not only trade volumes and full life cycle impacts but also the embodied energy impacts of raw materials within supply chains (SEI 2012)(Scottish Government 2012). Both Scotland's carbon footprint and ecological footprint are used as national indicators (SEI 2012).

Keywords: sustainability, smes, carbon footprint, policy

WG 5 Strategic planning and collaborative innovation

Understanding supportive networks for social-ecological innovation

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Abstract

Technologies and innovations have fuelled economic growth for centuries, but it is evident that they have also degraded the ecosystem services on which we all ultimately depend. The challenges that social systems face on a global scale have also reached a scale where the consequences could become very serious.

It has become increasingly clear that in the future, innovations must be developed and implemented so that they contribute to reinforce the resilience of social as well as ecological systems (Olsson & Galaz 2011).

The approach of social innovation highlights new cross-sector relationships, and bring active citizens and civil society organizations to the heart of the innovation process. For social-ecological innovation, this is just as important, to bridge the gap between citizens, researchers and policy makers, not least to link the social entrepreneurship process to institutional entrepreneurship in order to reconfigure governance structures (Westley et al 2011).

Today, much attention is directed towards the streamlining and professionalizing the social innovation process, highlighting organizational and managerial tools. But less attention has been directed towards the innovation system or supportive network where social-ecological innovation takes place. If it is based on different values, aims and approaches than conventional innovation, what facilities, competencies and resources do we need to see in this system?

In this paper, we turn our attention to the Biosphere Reserve Vänern Archipelago, and the process to develop a Biosphere Innovation System, focusing on social-ecological innovation, building on social-ecological resilience. (Bergstrans, Björk & Molnar 2011). Challenges here include how to create interactive innovation spaces and keeping the social-ecological focus while scaling innovations.

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Re-inventing the commons. How action research can support the renewal of sustainable communities

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Abstract

The notion of the commons refers to a certain way of sharing and working with others to create a sustainable and better way of life. At least that is how commons have worked throughout history; fostering cultural, social, co-operative and sustainable advances. This natural cycle of sharing is, however, drastically under assault, as many essential elements of common-pool resources – from ecosystems, to local knowledge and public access to nature – are slipping through our hands and into a growing erosion of matters of common interests. The good news is that people all around the world are beginning to re-invent the commons, and this is where relations can be drawn to action research. Confronted with the need of new narratives, action research can by its approach to social learning be used as a tool to support the revival of new forms of co-operations and the uniting of people concerned about nature as a common good. Using Danish nature conservation as an example this paper tries to throw light on this coupling - of action research and the effort towards new uses of an old phenomenon - showing how action research can support the reinvention of local sustainable commons.

Openings and closures of the environmental planning horizon

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Abstract

This paper addresses the participatory potential in environmental planning. Participation in planning has been discussed for decades in theory as well as practice. The participatory rationale is not only concerned with increasing the procedural legitimacy and efficiency in planning, but also perceived as a substantial contribution to the planning outcome. Despite the participatory rhetoric in planning there are increasing discrepancies between national nature protection policies and local community nature understandings. The challenge is to explore how such participatory endeavors are played out during a planning process.

This paper asks how a particular nature protection planning process in Norway opened or closed the potential for communication between different planning actors on the formal planning arena, and with local communities (citizens) in three affected municipalities. The researcher was engaged in the formal planning process during two-years and further facilitated local community workshops to explore the community perspectives of nature protection in relation to their everyday life perspectives. Understanding of such openings and closures for participation is especially relevant in planning that has an underlying sustainability rationale.

The paper finds that openings and closures for deliberative democratic participation were influenced by different understandings of knowledge and nature, as well as the constituent planning purpose rationality.

Our role - from supervision to dialogue

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Abstract

In the municipality of Aalborg, *dialogue* and *mutual dependency* have been chosen as main driving forces in the political strategy for continuous urban development in general, and for subsidized social housing in particular.

Construction of subsidized affordable housing is not solely an interest of the authorities – private developers are increasingly involved with the process, not only in the execution, but in the developmental stages as well. This cooperation makes the mutual dependency between the municipality of Aalborg and housing associations manifest and requires that the municipality can interchange between being authority- and facilitator respectively.

By changing the discourse from supervision to dialogue, we draw on the principles of value-based cooperation and mutual recognition as our main levers.

In this paper we will outline how we handle this change of role, from supervision to cooperation and how we work to create new tools to make the process of dialogue an active part of the cooperation.

Communicating sustainability

In the municipality of Aalborg sustainability is understood and applied as a broad concept that ensures that all aspects of sustainability are accommodated. The broad concept is incorporated into dealings with external parties, and used as a tool to obtain a shared understanding and thereby creating ownership when applying the concepts of sustainability to specific projects. In the paper we will explain the concept in detail as an example of an open-ended communication tool, how we want to apply it, and which difficulties we foresee in the usage.

Keywords: Urban Development, From supervision to dialogue, Value-based approach, Mutual dependency & recognition

The Norrtälje model- implementation of a program for water and waste water solutions in transition areas.

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Abstract

Norrtälje municipality has 57,000 inhabitants, 250,000 tourists, 27,000 summer houses and only about 25,000 pe¹ are connected by pipes to 22 municipal water and wastewater treatment plants.

During the years 2006 - 2008 the municipality's water strategy group mapped 400 different summer houses areas and a "Program for development of municipal water and sanity"(PDMWS) were clubbed by the Municipality parliament on April 18, 2008.

The program represents a doubling of the number of connections to central systems in the municipality until 2030. This will require very big investment because even new treatment plants and water supply systems would be needed to cover the expansion. It was decided to have an information campaign to get more people to join through contracts between the municipality and water associations.

The conclusion was that a very active work on communication and information solves technical, economic, environmental and social problems. Communication and respectful dialog is an important part of sustainability.

¹ Pe= person ekvivalent, 70 gr of COD per day

Collaborative planning as an innovation vehicle – promises and caveats

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Abstract

Natural resource management and rural development are organized within multi-level governance systems that integrate international, national, and sub-national policies with specific funding schemes and participatory planning processes. Using the terminology common in the EU context, this contemporary effort can be labelled as programme-based planning (PBP).

In this paper, we consider PBP as an approach aiming to enhance collaboration and coordination between diverse actors in the frame of programmes. The ultimate aim of collaborative PBP processes is to find novel solutions to emerging complex and challenging situations in rural areas of Europe. Two action research cases from Finland – regional forest programmes and Leader community initiatives – provide evidenced insight to the essential features that a successful PBP process may contain to reach collaborative innovation. Moreover, the cases show that facilitation, knowledge management, formal decision-making procedures and power relations contain potential sources of communicative distortions that shape the development of PBP. It appears that an easily available tray of collaborative planning methods and techniques suffers from scarcity of tools to foster innovations. Such innovation-specific idea generation, testing and refining methodology is recommended for further development and delivery to PBP processes. Actor networks and collaboration action models would then form prevalent root-level innovation systems in which new service opportunities and public-private partnerships may emerge. To conclude, root-level innovation systems hold a potential key role as important driving forces in environmental governance.

Keywords: action research, programme-based planning, regional forest programmes, root- level innovation system, rural development level innovation system, rural development

Dilemmas of legitimacy and democracy in environmental governance. The Case of Large Carnivore Management

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Abstract

Traditional ways of governmental top-down steering are increasingly challenged by governance-oriented modes. The State, in its quest for adaptability and flexibility, is constructing new strategies for governing the public-policy domain, thus modifying its state competencies. Deliberative democratic processes and adaptive co-management have become preferred tools for bringing together interested groups and offering fora for discussion and cooperation with the prospect of minimizing the conflicts and reaching consensus, especially in infected socio-political debates. One of the pioneering areas where adaptive co-management has been implemented is the management of the common property natural resources. This study focuses on a particular sector of the commons – large carnivore management – that has so far received little attention from social sciences despite its conflicting and “wicked” character.

The challenges of polycentric steering modes transform the political landscape on all societal levels which brings about new difficulties for analyzing and measuring these phenomena. Whilst there has been some attention paid to the structure of composite networks, it would be of high relevance to scholars and practitioners alike to develop tools for reaching desired network outcomes. Traditionally, evaluation has revolved around matters of effectiveness and efficiency, while dilemmas concerning democracy, legitimacy, and accountability have remained unaccounted for. It is argued that institutional legitimacy is of crucial importance for successful short-term policy and politics as well as for the long-term sustainability of the species and the co-existence of carnivores and people.

Keywords: legitimacy, democracy, the commons, adaptive co-management, wicked problems

Future designs for global environmental management: What Has Been Done? What Can Be Done?

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Abstract

In this study, the need for a new institutional organization, using historical and descriptive research methods is evaluated and the pursuits towards global environmental organization are set forth. Evaluation is based on configuration and policies of other international formations taking an efficient role in UNEP, GEF and global environmental management. The aim of this study is to find answers to the following two questions and open a discussion: (1) What is the level of success of existing global environmental management in the solution of environmental problems? (2) Is it possible to establish a Global Environmental Organization (GEO) that can produce environmental policies integrating and coordinating specialized units carrying out responsibilities related with the environment under the framework of United Nations and to apply international sustainability policy?

Keywords: UNEP, GEF, Global Environmental Management, World Environmental Organization.

The governmentality of European planning in the frame of compact city development – tensions and challenges

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Abstract

As a development strategy, the compact city has grown to be hegemonic in Europe (Jenks & Dempsey 2005, Jenks and Jones 2010, Næss et al 2011, Westerink et al 2012). As an ideal development model it combines economic, environmental and social sustainability through one common framework: a dense and mixed-use pattern of development. It can therefore be seen as an innovative spatial response to the sustainability challenge answering economic concerns through the provision of a higher volume of smaller flats and vitalised city centres; environmental concerns through polycentric, transport oriented development and social concerns by catering for social encounters through increased levels of interaction amongst city dwellers. However, once implemented the compact city can have outcomes, which are contra to the goals of sustainability (Neuman 2005), driving up housing costs (Cheshire, 2006) and creating undesirable housing forms (Bramley & Power, 2009).

Through a comparative analysis of former and current planning governmentality in four European countries – England, Denmark, Netherlands and Norway – the paper contextualizes the hegemonic compact city discourse and identifies current modifications and new paths of development aimed at further developing the compact city model. More specifically, we ask: To what extent is compact city development a vital discourse in European planning? Can discourses challenging the compact city discourse be traced? Can new discourses emanating from these tensions be identified? The empirical basis for the study is literature reviews and document studies of national policy documents in the four countries.

Strategic planning in compact city development – integrating the variety of knowledge, interests and concerns?

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Abstract

Compact city- development has been the leading concept in Nordic cities for two decades, as it is advocated as “sustainable” due to lower emissions, lower energy use, less land-consumption and better conservation of the countryside. The literature shows, however, that there are certain trade-offs in striving for compaction, especially between environmental and social aspects of sustainability (Westerink et al 2012). In this paper we discuss how strategic planning in Norway and Denmark is used (by planners and local politicians as strategy makers and/or strategy finders) to actively address the trade-offs of compact city development. By strategic planning we understand attempt to act proactively on certain focus areas of great importance in society and develop a common framework for the development in collaboration with relevant private actors like citizens, interest organizations, business, NGO’s etc. Strategic planning is a highly political process (Albrechts 2004, Healey 2007). We have a specific focus upon how this tool is used for integrating and selecting the variety of knowledge, and the interests of a huge complexity of actors and concerns in this kind of development. Furthermore the article discusses the perspective of strategic planning as a tool not to make comprehensive long term plans but 1. to facilitate and mobilize relations between certain activities, movements and flows in a specific place (Amin 2004, Healey 2007), 2. to sustain potentials and development possibilities in practice and 3. to establish a temporary “resting” or partial order of conflicting meanings, ideas and interests within families of strategies (Hillers 2007, Healey 2007, Sievert 2007).

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Keywords: Strategic planning, compact city development, participation, knowledge.

Planned or emerging futures? Addressing climate change on regional level by strategic planning

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Abstract

Climate change is an emerging planning and policy-making task from global and national to regional and local levels. Lately, particularly the regional level planning has been emphasized.

Climate change strategies aim to reduce uncertainty connected to the changes brought along by climate change and to find ways to proactively adapt to them. However, climate change is a wicked problem and poses challenges to strategic planning as a tool.

This paper discusses strategic planning as a forum and tool for addressing climate change on regional level. In addition to theoretical discussion, examples from the collaborative planning process of the Regional Climate Change Strategy 2030 of Finnish Lapland are provided. The case study shows that natural conditions are no longer stable starting points for regional development work, but climate has become a dynamic actor that can bring also new opportunities to the region, change weaknesses into strengths and even change the strategic position of the region.

Regional development related strategic planning can, in some politico-administrational cultures such as in Finland, serve well as a context for climate change adaptation, but the task to promote regional development can lead to less emphasis on global and environmental concerns and more on ensuring the auspicious development in the region.

Keywords: strategic planning, regional development, climate change, regional level

WG 6 Adapting to climate change in urban areas

Forms of knowledge in urban climate change adaptation – open interventions and well-known economics

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Abstract

Across Europe, cities experience the impacts of climate change, rapidly calling for actions and pushing research. However, often local governance institutions face a lack of knowledge or an insufficient level of detail in available knowledge on anticipated or actual impacts of climate change, while concomitantly, adaptation policies and strategies often only partially reflect findings and forms of knowledge produced by social and natural sciences that examine the processes, drivers and dynamics of climate change. This opens questions of the role and position of knowledge in local policy processes and governance of adapting cities to climate change.

In this paper, we examine how different forms of knowledge are integrated in developing actions and strategies aimed at adapting urban areas to climate change. The study focuses on a case of a medium-sized city, namely Copenhagen, and investigates the forms of knowledge that are included and excluded in adaptation strategies; arenas of learning opened up for local scale policy-makers; and further how different forms of knowledge influence initiatives and strategies. The analysis is based on conceptual approaches of framing and of social learning. The study shows that the complexity and uncertainty related to local-scale climate change push novel forms of knowledge concerning forms of intervention, including experiential spatial planning, while economic based forms of knowledge, such as cost-benefit-analysis, and meteorological forecasts are discernible in Copenhagen's adaptation strategies. Learning that reflect these forms of knowledge is however more random and dependent on concrete activities connected to application of the forms of knowledge.

Climate for Change? Integrating Climate Change into Cities' Planning Practices

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Abstract

Initial evaluation of climate change planning practices shows that implementation of climate change activities is insufficient due to issues of institutional capacity in terms of coordination between different levels of government, sufficient knowledge among key actors, internal institutional dynamics of local governments, and human and financial resources (Agrawal et al., 2012, Bulkeley, 2010). The reasons for this scarcity in practice are limited to general explanations in the literature, and studies focused on explaining the constraints on CC planning at the local level are absent. To understand these constraints, investigates the institutional dynamics that influence the process of the integration of CC into planning practices at the local level in Denmark. The research concludes that the characteristics of CC governance are shaped locally and integration across sectoral departments in the city administration is found to be constrained by existing structures which officials have to navigate to create legitimacy for CC actions. The potential for using existing planning tools for CC integration has not been fully exploited, and CC planning is instead perceived as an explorative area, where institutional entrepreneurs create windows for action through the establishment of local networks. This research contributes knowledge on the constraints of the internal integration process in city governments. It provides explanations of why these constraints occur, and how officials seek to overcome them. The research provides explanations of the emergence of local networks between city governments and local businesses and it contributes a local perspective to the research area of CC as a multilevel governance issue.

Keywords: Climate change governance, integration, legitimacy, local networks, green growth

Urban adaptation to climate change: path dependency, transformation and ethics

Joe Strahl

Abstract

Case studies of and literature about climate change adaptation in cities are analyzed and compared. The framework for analysis builds upon three themes or concepts: path dependency, resilience thinking -- in particular transformability -- and ethics. These themes were chosen for three reasons. First: a recent (2011) review finds a tendency for cities to suggest adaptation solutions which extend present practices and decisions. Second: there is a clear likelihood that the impacts of climate change may become grave with a variety of challenges far beyond recent human experience. Therefore, there may be a pressing need for not just adaptation taking a point of departure in the present but transformation where adaptation decisions and measures may be based on a backcasting from a desired future state. Third: many climate change discourses on what should be done to mitigate emissions and what adaptation is necessary tend to be framed in economic terms and not in the first instance ethics. Using the three themes this study attempts to find: evidence in city case studies and the literature of attempts to break with path dependency, evidence for understanding in these city studies of the possible need for transformational capacity as climate change accelerates, and evidence for the inclusion of ethical concerns in the studies -- particularly prior to cost and benefit considerations.

Climate change adaptation governance in Finland – The case of the Helsinki Metropolitan area

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Marko Joas

Abstract

This paper attempts to provide an insight into sub-national adaptation governance in Finland by offering a descriptive narrative of climate change adaptation in the Helsinki Metropolitan Area (HMA). The HMA, comprising the cities of Helsinki, Espoo, Kauniainen and Vantaa, is the most populous area of Finland and home to almost a fifth of the entire Finnish population. The HMA represents an atypical case in the Finnish sub-national adaptation context. HMA has succeeded in drafting a comprehensive adaptation strategy and is currently in the process of implementing by mainstreaming and integrating adaptation as a policy issue within the HMA member cities. HMA adaptation efforts have largely been enabled by the adaptive capacity within the area: the awareness, the knowledge, the technology and the willingness needed for planned adaptation efforts as well as by the necessary economic resources. The institutionalization of the inter-municipal cooperation between HMA cities has enabled HMA to create the governance framework for adaptation efforts. Even though the HMA adaptation work has not been straightforward and been challenged by various constraints, their work should be disseminated to the wider Finnish sub-national audience, especially considering that Finnish sub-national adaptation actions can in general be characterized as nonsystematic, sporadic and largely based on voluntary efforts. Despite sub-national contextual differences and varying degree of vulnerability to climate change, the HMA work on adaptation offers in-depth experiences of the challenges and the enablers of climate change adaptation efforts.

Keywords: Climate change, adaptation, governance, Finland, Helsinki

“The River is a Living Thing!” Climate Adaptation in a Multilevel Context: The Gothenburg Metropolitan Region

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Abstract

Although individual local governments are key players in climate adaptation, their authority does not match the scale of climate change and its impacts. Because competences are divided among local and regional authorities, adaptation requires cooperation, not the least in metropolitan regions. Metropolitan-wide cooperation raises distributive issues of authority and legitimacy that are further linked to national and international institutions and processes.

This paper focusses on how the 13 municipalities in the Greater Gothenburg Metropolitan Area - which is expected to be the Swedish area most affected by impacts of climate change - address and act upon issues of climate change adaptation within the framework of Sweden’s Planning and Building Act, which places responsibility for the “common interest” of climate adaptation with local governments. By analyzing municipal Master Plans, as well as the comments on these Plans from the County Administrative Board and from the Regional Planning Organization, I then discuss the resulting patterns in terms of authority, and address the issue of the efficiency and legitimacy of this particular system of multi-level governance for the metropolitan and local adaptation to climate change.

Keywords: climate change, adaptation, multi-level context, local master planning, legitimacy, efficiency

Motivating local home-owners to energy retrofitting as examples on Urban Climate Governance in Danish Municipalities

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Abstract

In the recent years, Danish municipalities have increasingly taken up initiatives to improve energy efficiency in private buildings. The paper will present a study on how Danish municipalities in practice have carried out such efforts on convincing private home-owners to improve the energy efficiency of their homes. The study includes a survey amongst 22 Danish municipalities on their initiatives, and case studies of five municipalities.

In a theoretical perspective, the municipal initiatives to promote energy retrofitting can be seen as an example on 'Urban Climate governance' (Kern & Alber, 2009; Bulkeley, 2009) that includes different governmental approaches for the local authorities. The challenge of local sustainability is that it is complex and defined on different levels (local, municipal, regional, national, and international), that requires a 'multilevel governance'—approach to succeed (Bulkeley & Betsill, 2005). Moreover, the municipalities 'traditional' regulatory tools are insufficient when it comes to change of private property, therefore other types of governance are needed.

From the theoretical perspective the paper will discuss the different types of governance being used in practice, including the types of governance and collaborations, as well as the challenges and shortcomings of the selected approaches. Also, it will discuss the motivations for the local actors to pursue this type of initiatives, in relation to the results achieved.

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Keywords: Home owners, buildings, energy retrofitting, municipalities, urban climate governance

Multi-level governance, climate change and flooding in urban Africa

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Abstract

It is widely assumed that the response to the impacts of climate extremes such as urban floods, raises complex development issues that are best addressed at the local level with substantive community involvement. This paper utilizes a multi-level governance approach as an analytical tool to analyse interactions among state and non-state actors in flood risk management in the coastal cities of Saint Louis, Senegal and Dar es Salaam, Tanzania. The research finds that the community-based organisations established within the city have emerging networks and capacity to cope with flood risks and demand change by the city governments. However, limitations in higher-level governance undermine the opportunities for local groups to become really effective partners with the municipality and the state in co-producing services required to enhance city-wide and local resilience, and more so, to bring local actions to scale beyond the jurisdiction of the local wards and the city. For city and sub-city level actors to be able to move beyond present coping strategies and address disaster risk preparedness and climate resilience on a broad scale, firm support is needed from higher levels of government, including also from international agencies and from the private sector. This encourages us to extend the institutional analysis to include the broader political economy and geo-physical region within which the metropolitan society is situated.

Depending on historic and contextual circumstances, we find that there are forms of command and control modes of governance dominated by central government that show both high and low degree of developmental effectiveness in interactions with city and sub-city actors in addressing floods. Compared to Dar es Salaam, the city of Saint Louis is overall better planned and serviced, including by a national flood risk management system. We explain this mainly by a more accountable central and regional state administration (providing financial and institutional support for services), but also by a municipality more accountable to poor citizens as well as greater capacity and associational strength at the community level. This reflects in part the institutional history of Saint Louis as a former capital of Senegal with long municipal governance traditions.

WG 7 Energy – provision and efficiency

Dilemmas and solutions for a green transition

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Abstract

Mitigation of global warming and transition to a green and sustainable world are counteracted by a number of barriers and dilemmas. The paper analyzes a number of these barriers and dilemmas in order to create efficient strategies and solutions for a sustainable development. The dilemmas include the following examples:

- There are limits to economic and material growth on a limited globe, but most governments in industrial countries are calling for more growth in a period of financial crisis.
- More equity is required to break the desire for growth, but inequity is increasing.
- In order to avoid irreversible damage of climate change the increase in global temperature should stay below two degrees, but the present path points to four degrees or more.
- At least 50 % of known reserves of fossil fuels must stay under ground in order to avoid a temperature increase higher than two degrees, but a number of industrial countries are now promoting exploitation of new fossil sources like shale gas and oil from tar sand.
- Reversing population growth facilitates sustainable development, but most governments of industrial nations are deeply worried when their population is decreasing.

The central problem is that *limits to growth* is not taken seriously by any finance minister in any industrial country. The paper will focus on the consequences of limits to growth and the need for an alternative concept of employment and work.

Does the sun shine in Finland? An overview of supportive solar energy policy instruments in the EU and future policy recommendations for Finland

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Abstract

The paper looks at supportive solar energy policy instruments in the European countries in order to promote the use of solar energy and the role of policy instruments required to promote solar energy in Finland, too. Finland is one of the few countries that has not taken subsidies into use for solar energy. It has implemented a general energy support for renewable energy projects for the use of companies, communities and public government. At the same time, transition to renewable sources of energy is crucial also in Finland, in achieving the goal of EU 2020 agreement and therefore, the increase of solar energy is also recommended.

The paper is placed within the framework of the concept ‘transition management’ used for example by Jan Rotmans. The paper aims to answer the following questions: What kind of policy instruments have been taken into use in different EU countries to promote the use of solar energy? What is the potential of solar energy in Finland? What kind of policy recommendations towards the promotion of solar energy can be derived from the empirical material to the Finnish decision-makers?

The empirical part consists of results of semi-structured interviews with Finnish Members of Parliament, companies in solar energy business in Finland and different kinds of actors in solar energy industry sector in Finland, including civil servants and NGOs.

The paper provides an analysis of solar energy policy instruments in the EU countries and concludes with some action ideas for the Finnish government regarding solar energy.

Keywords: transition management, qualitative analysis, photovoltaic

Central planning institutions and wind power decision-making in Scotland and Norway. Key criteria for “effective” sustainable energy decision-making in centralised wind planning processes

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Abstract

Despite ambitious political goals and generally high level of public support, Norway and several other countries' goals on progress in wind energy are not achieved, while some other countries, for example UK, have made steep progress during the last decade. An increasing number of researchers stress the importance of the national planning institution's role with respect to promoting an “effective” decision-making process in terms of bringing about sustainable energy. This article discusses criteria for effective wind power planning, and compares two countries – Norway and Scotland – which have relatively centralized planning systems. We ask: To what degree do Norway's and Scotland's formal central level wind planning process harmonize with key criteria for effective and sustainable wind energy planning? We find that overall the Scottish planning system can be argued to harmonize more with key criteria for effective sustainable planning than the Norwegian, particularly related to two of the criteria: a planning regime which balances political objectives in a way that promote wind energy and stakeholder involvement.

Key words: Renewable energy, effective planning, environment

Energy Provision and Waste Emission: Time, Disproportionality, Technological Innovation, and Climate Change

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Abstract

Inanimate energy powers modern societies, but it also results in waste, which is the opposite of efficiency. This is especially true of fossil fuels. Unlike early industrialization when waste immediately fouled the nest of only the polluter because of its limited scale, in late modernity waste from massive energy consumption fouls the nest of everyone in space and time. For example, the atmosphere is a medium that conveys a relationship between those who emit carbon dioxide into it by combusting fossil fuels and those suffering the consequences, including distant societies and future generations. Social problems like anthropocentric climate change are difficult to solve because they involve i) differentiation between beneficiaries of inanimate energy and victims of its waste and ii) a time lag between causes and consequences. Nevertheless mitigation is needed otherwise adaptation could be overwhelmed especially in vulnerable poor societies. This paper critically assesses a prominent solution based on technological innovation. The paper integrates two underutilized elements of social theory, namely Adam's work on time and Freudenburg's concept of disproportionality, to provide insight into the perverse unintended consequences of inanimate energy provision. Empirically it compares i) North America's intensification of its economic path dependency on fossil fuels through the development of hydraulic fracturing, tar sands oil extraction, deepwater drilling, and Arctic drilling thereby disproportionately causing emissions, with ii) Northern Europe's attempt to innovate a future-oriented economic path relying on energy efficiencies and renewable energy.

Keywords: energy; waste; time; disproportionality; North America; Northern Europe.

Prospecting for Flexibility: Findings from a Collaborative Enquiry into Smart Electricity Systems

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Abstract

The terms demand management and demand side management have become increasingly prevalent in electricity industry and governmental discourse around the significant energy challenges facing western economies and polities. While ‘demand management’ suggests some degree of control over end use, ‘demand side management’ (of infrastructure) opens up the possibility of enrolling end users in the co-management of the grid by finding ways to utilise their flexibility – creating new identities for households and small businesses as participants in a ‘smart’ system of provision rather than figures served by such an entity.

We draw on qualitative research in large inter-disciplinary smart-grid project to examine the ways in which the flexibility with which everyday practices are performed is being economised. The research comes from an on-going investigation into smart grids and power system innovation in the UK in which social and engineering scientists, mathematicians and industry partners are working collaboratively to investigate the possible futures of electricity production, distribution and consumption with particular emphasis on this notion of customer flexibility. We argue that flexibility can be understood as a form of social-technical capital produced by smart energy systems, the process of economisation produces particular forms of flexibility which are not equally distributed between or within households. Drawing on this research the paper will also reflect on the various roles to be played by social scientists in energy system innovation and in the political production of more sustainable energy futures.

Keywords: flexibility, demand side management, inter-disciplinary, smart grid, economisation, capital

Energy performance contracting in the public sector; overcoming barriers to energy saving?

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Abstract

Policies for energy savings are one of the main elements of the Europe 2020 flagship initiative for a resource-efficient Europe. However, experience and research show that it is difficult to realize the potential for energy savings. In this paper we focus on energy savings in the public sector and one specific method of increasing savings, namely Energy Performance Contracting (EPC). As a contracting service, EPC provides customers with a set of energy efficiency measures, often accompanied with guarantees that the savings produced by a project will be sufficient to finance its full costs. Estimates indicate that EPC is a promising way of increasing savings substantially. We explore the factors of importance for municipalities when choosing EPC as their method of increasing savings. The results are based on interviews in seven Norwegian municipalities.

From an economic point of view it is difficult to understand why profitable investments and measures should not be undertaken. However, when faced with energy saving decisions in the public sector, standard economic approaches for understanding barriers to energy savings, are not sufficient. In this sector decisions are often a result of an interplay between political considerations and bureaucratic knowledge. We show how the specific features with EPC are suited for addressing the logics of the administrative and political man. We also show how the uptake of EPC is dependent upon persons with technical and institutional knowledge combined with an engagement in energy saving issues. This indicates that efforts to increase the uptake of EPC in the municipal sector should focus on standardizations of the EPC method to make it attractive to all types of municipalities.

Tenant Views on Energy Efficiency in Renovated Homes– Tales from Brogården and Gårdsten in Sweden

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Abstract

It is well known within the building sector that a large number of residential urban houses, built in the 1960's and 1970's (further million-program areas), are in urgent need of refurbishing. Within the next coming two decades, between half a million and 1.3 million flats must be refurbished in Sweden. The ClueE project has investigated some cases where restoration of million program homes has taken place, including energy efficient aspects. This specific study reports from the tenants' perspectives;

If tenants in low-energy apartments are more environmentally interested or ambitious than other tenants in rental apartments (is there a self-selection bias here?)

How did the tenants experience the 'evacuation' during the refurbishing process and the succeeding rental increase?

How do the tenants in low-energy apartments evaluate their accommodation, compared to similar groups?

Data was collected through door-knocking when the tenants were introduced to a combination of fixed questions and open interview questions, all in all 61 interviews were carried out in three different locations, Gårdsten and Brogården representing the million programs.

Our results indicate that there have not been any self-selection processes in terms of who has chosen to live in the refurbished apartments, as the ClueE population is less interested in environmental issues than the general population. However, they are more energy saving in their behaviour, which is supported by the design of the accommodation. The evacuation moved smoother than the ClueE team would have expected, as the Housing Company used several strategies to convene this process; a) standard increasing measures, b) diversification of apartment sizes, c) strategies for 'home-staying' for elderly people, and c) socio-economic revenue when future public costs are perceived to be reduced. Together, these aspects can be perceived as important restoration triggers which needs to be considered in future projects of a similar kind. Finally, the tenants in the ClueE population evaluate their accommodation today more positively compared to similar tenants in rental apartments in Gothenburg, or in Region West Sweden.

Keywords: energy efficiency, tenants, evacuation, rent increase, evaluation

Changing technologies and changing routines. An investigation into household sociotechnical transition.

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Abstract

Increasing energy efficiency in households is a difficult task which often involves encouraging citizens to acquire more efficient energy using technologies, as well as changing practice around using them. The energy cultures framework (Stephenson, et al., 2010) suggests that a change in material culture may cause a change in norms and or practices associated with energy using technologies. This paper investigates householders' change in behaviour following a sociotechnical transition – namely when they shift house. Participants were interviewed before moving to ascertain what normal practices were and how they anticipated using energy would be different in the new house. Using elements of soft-systems methodology, participants were interviewed again after moving home to establish how energy related behaviour had changed (or not) according to their new material culture and previous expectations.

The study found that there were many contributing factors to appliance acquisition and disposal, which were often triggered by the new house structure and layout. The more different the new house was, the more likely householders would adopt new appliances and routines. Common appliances such as the household fridge were often swiftly changed according to house characteristics, and household heating appliances were common triggers for new routines. This has strong implications for policy makers, being able to know the types of changes that happen naturally when moving home can give opportunities to encourage energy efficient appliance uptake, paving the way for more opportunities for energy efficient practice.

Keywords: Energy efficiency, behaviour change, practice, habit, context change, household, material culture, heat pumps

Triggering transition towards biogas production: a perspective of policy coherence

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Abstract

Sustainability transition in energy provision has accrued a considerable amount of interest in recent years. The role of politics and policies in triggering transitions is central both in inhibiting and in promoting change. The identified policy problems include for example the instability of policies over time, the attention given to incumbents versus new actors and mismatches between policies at different levels and sectors - policy coherence problems. Despite the identification of issues related to policy coherence, the transition management studies often focus on one sector and, particularly, the role of policy interaction between different sectors remains underexplored. Furthermore, the transition to sustainability may require a deeper political change going beyond policy fixes and involving the perceptual/ meaning-making level of relevant actors.

Biogas production is an emerging energy production form which, in the form of anaerobic digestion technology, is highly relevant in the waste and wastewater management sector. Furthermore, biogas production and utilization involves agriculture and food production, traffic and energy sectors. Lack of policy coherence between the different sectors can be viewed as hindering the emergence of biogas systems. However, the lack of policy coherence, especially at the local level, may also have innovation triggering influence if it forces actors to consider unconventional solutions. This paper examines how policy coherence is related to triggering transition. Biogas production in Finland is used as a case example. The analysis is based on interviews of biogas production related actors and their perceptions on the role of policies and underlying politics.

Key words: policy coherence, sustainability transition, biogas, waste management, Finland

Climate-friendly construction and capital constraints: A problem of asymmetric information?

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Abstract

Energy efficiency investments in the built environment are a key issue to meet set climate goals. For real estate developers access to debt financing is imperative. Borrowing capacity is therefore related to the likelihood that environmental targets are met. In this interview study we investigate whether the views on investments' debt capacity may differ between different parties in the real estate market, and how that can affect developers' access to finance.

We find that property owners and banks come to different conclusions about the borrowing capacity of energy efficient construction projects. There is reason to believe that energy efficient buildings often are profitable, insofar that the larger investment outlays are compensated by larger discounted future cash flows, but that investments are impeded by a lack of funds.

We also investigate whether property appraisers as well as environmental certification can serve as certifying bodies to overcome borrowing constraints induced by informational asymmetries. We do not find that they fill that role in Sweden today.

The capital constraints could be problematic for developers who are hindered to make value increasing investments, society at large as it may lead to underinvestment and increased external costs, and for the banks themselves as they risk allocating capital to inferior assets.

Keywords: Buildings, Energy efficiency, Debt capacity, Certification, Sweden

The acceptance of uranium mining in Finland: Citizens' perceptions in four Finnish regions

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Abstract

Mining has been a growing industry in Finland for a few years and many new mining projects have been started, especially in eastern and northern Finland. The Finnish public discussion on mining has been quite heated and it has included a rather importunate debate on uranium, especially during the years 2005-2008 when there were many local conflicts about uranium exploration and possible uranium mining. In 2010, Talvivaara Mining Company Plc. announced it would start procedures to produce uranium as a by-product at their multimetal mine in the region of Kainuu, eastern Finland.

In this paper the acceptance of uranium mining activities in Finland is studied by analysing a survey on citizens' perceptions on mining. Despite the current mining boom, Finns' attitudes towards mining and especially towards uranium mining have been only partially studied. In order to create responsible mining, it is essential to study citizens' attitudes towards this industry.

Keywords: attitude, mining industry, social licence to operate, survey

Conceptions of private consumers in current smart grid research and the possible directions for social science research on smart grids

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Abstract

This paper reports from an ongoing survey and analysis of completed and ongoing smart grid projects. The overall aim of the survey is to map the existing research and evaluate how it contributes to the understanding of users in smart grids. The paper also discusses how current evidence can be organized to uncover gaps. Finally it offers some possible research opportunities for social science research in smart grids.

Keywords: field trials, user studies, user roles, user behavior

Dominant logics for energy efficiency in the public housing sector. – What are the prospects for moving towards ecological modernization?

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Abstract

This paper provides insights into managerial approaches of public housing companies relating to urban energy efficiency investments in the Swedish Million Homes Program. The aim is to investigate the role of energy efficiency for the long-term orientation of public housing companies.

There is a large need to refurbish the Swedish Million Homes Program and political ambitions for energy efficiency in urban housing are high. By 2050, energy use in the existing building stock shall be reduced by 50% (SEA, 2010). This development should occur on commercial grounds (SFS 2010:879) without subsidies or mandatory legislation. Although public housing companies consider energy efficiency investments desirable, these are frequently postponed due to scant profitability, resulting in a ‘wait and see’ strategy.

This research identified some public housing companies that are determined to take a comprehensive approach to energy efficiency and ‘act now’. By way of case studies, these companies’ motives and characteristic features are contrasted with those of companies displaying a conservative approach. The comparison of companies conducting far-reaching energy efficiency investments and companies with modest investments shows differences in their motives and approaches to social responsibility. The former companies have an integrated view of the value of a residential area, embracing a triple bottom line perspective (Elkington, 1997), whereas the latter companies’ approach is fragmented and focuses on the economic performance of the company. Conclusions are drawn on the organizational consequences of the divergent managerial approaches, the prospects for improving urban energy efficiency and the societal implications of the different practices.

Keywords: energy efficiency, Million Homes Program, public housing companies, dominant logic, ecological modernization

WG 8 Forest policy in transition

Changes in Norwegian forest policies: What are the effects of international policy processes?

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Abstract

The Convention on Biological Diversity and the United Nations Convention on Climate Change describe various contributions by forests in solving global environmental challenges. The partly conflicting recommendations on how forests may contribute to maintaining biodiversity and in climate mitigation are prime examples of increasing and diversified demands on forests from society. This paper investigates recent changes in forest protection and climate-related forest policies in Norway searching for causal effects of the CBD and the UNFCCC and its Kyoto Protocol. Employing methodological procedures from the regime literature, effects attributed to the international regimes are shown to vary depending on theoretical and analytical approach. Implications of variations in effects depending on specification of regime objectives and scope of analysis are discussed in relation to the various societal demands on forests. It is argued that forest policy is a promising topic for investigating interactions between international and national policy development and implementation, but that due attention is required to trade-offs and multiple regimes providing partly conflicting objectives for forests.

Keywords: biological diversity, climate mitigation, forest governance, forest protection, international regimes, conflicting objectives

International Influences on the Revision of Finnish Forest Act: Defining the Framework for Analysis of Different Stakeholder Coalitions' Positions and Argumentation

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Abstract

The revised Finnish Forest Act is currently being finalized. The need for revision emerged from the societal changes manifested through the changing objectives of private forest owners, increasing and diversifying demands for forest goods and services and the increasing number of stakeholders, as well as the changes in the forest sector operational environment that relate to the globalization of markets and influences of international policies.

This study concerns on the influences of global and European Union forest and environmental policies on domestic level forest policy-making by focusing on how these influences have diffused to the revised Finnish Forest Act. The aims of the study are 1) to describe the analytical frame-work to be used in analysing advocacy coalitions that have been involved in the revision of the Finnish Forest Act and 2) to describe the previous applicable forest policy studies. The paper will also shed light on how the international influences can be understood in the Advocacy Coalition Framework.

Keywords: forest policy, international forest policy, advocacy coalition framework

Cooperative networks as transition in forest biodiversity policy

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Abstract

I will discuss cooperative networks for forest conservation as a means of transition from top-down governance of forest biodiversity to voluntary, network-based governance of forest biodiversity. The qualitative data was gathered in Finland, where forest conservation has been in transition towards voluntary means and network-based governance for a decade. At the time of fieldwork, new, voluntary means for forest conservation on private lands had been in effect for some time but did not yet play a significant role in actual forest conservation and forest management practices.

Transition towards network governance of environmental issues has been evident since 1990's. Environmental issues are brought about by informal and loose networks more often than by authorities. The concept of networks has been embraced also by governments. In the case of cooperative networks for forest conservation, the networks were established by the state in order to implement voluntary forest conservation means on private lands. Cooperative networks emphasizing voluntary means also legitimized the national forest biodiversity program METSO; previously, such programs had received strong opposition from private forest owners. Thus, cooperative networks were not bottom-up, informal coalitions, but rather a tool in transition. They aimed at creating wider cooperation between different forest actors, and at bringing conservation and forestry closer together for example by experimenting natural forest management.

I will focus on transitional elements of the cooperative networks. I will ask what kind of a tool for transition of forest governance a cooperative network is, and which network practices catalyze the transition towards new practices.

Keywords: forest conservation, networks, cooperation, governance, transition

Action Situations and Stakeholder Interactions: Characterizing the Patterns of Forest Recreation Governance in four Swiss Cantons (Aargau, Fribourg, Thurgau and Zurich).

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Abstract

Among the several functions forests offer, forest recreation has in the last decade gained importance, not only for society as whole but also as a research topic in the social sciences and the policy analysis community. This increased importance is due to new or growing societal demands regarding forests, which increasingly result in conflicts between the different forest users and forest functions. These conflicts are expected to accentuate even more in the future. The new societal demands on forests and new recreational activities such as high-wire parks and geocaching challenge both policy makers and forest entrepreneurs. because forest recreation expectations and conflict responses have to be balanced. Therefore, understanding the dynamics and mechanisms of forest recreation governance is crucial to better address the different societal demands, to enhance the provisions of services from forests to society and to deal with conflict potentials.

This paper explores the governance of forest recreation using the Institutional Analysis and Development Framework. This is done in order to characterize forest recreation governance and to highlight the crucial factors influencing forests (as an open resource). The paper focuses on urban forests in four Swiss cantons. The paper argues that a better understanding of forest recreation governance may improve the management and planning of forest recreation in agglomerations. Finally, the findings presented may help to achieve a more cross-sectoral and multi-level approach in forest recreation management and planning.

Keywords: Conflict potential, conflict response, IAD framework, urban forest, governance of forest Recreation

Fires, Forests and Conflict in times of rapid environmental change in Sweden and Australia

Katarina Eckerberg & Marleen Buizer

Abstract

The twenty-first century will see an increase of environmental problems that are highly complex, hard to solve by means of the kind of instrumental rationality that has been characteristic for most of the twentieth century environmental problem solving, and laden with conflict particularly when they demand human interventions in nature. The use of fire is one such contested intervention. In this paper we focus on the role of conflict and deliberation in forest and fire management practices in two countries whose landscapes have historically been shaped by fire, Sweden and Australia. In Sweden, burning is gradually emerging on foresters' and nature conservationists' agendas for nature conservation purposes. In Australia, prescribed burning has been practiced since the 50s on a relatively broad scale, chiefly to prevent larger fires and also for nature conservation purposes. Touching on a wide range of values, such as biological diversity, human safety, traditional heritage and professional identity, fire management has often been the topic of fierce debate. In contemporary politics expectations are high of forms of collaborative governance. Therefore a focus on the twin concepts of conflict management and deliberation is particularly relevant. How does collaborative governance manifest itself in potentially conflict-laden situations such as those relating to fire management? And what are its chances considering the Swedish and Australian contexts with their strong reliance on technical scientific expertise? We conclude that forms of local, collaborative governance in which conflicts and difference have a place, rather than generalized knowledge, are promising but rare processes to move forward.

Why has large action to renew forest industry and forest use produced so meagre results? A case study on processes of (un)change in the Finnish forest sector 2005-12

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Abstract

In recent years, forest use and governance in Europe have been affected by many new, partly conflictual goals and developments.

On one hand, a major restructuration of forest-industrial production has been taking place because of decreasing demand (especially for printing paper), which has resulted in decrease of production, employment and also of timber use in some countries. On the other hand, forest use for other purposes, such as bioenergy, biodiversity, recreation and ecosystem services, has increased in many countries, partly as a result of different policies formulated by EU and/or nation states.

The purpose of this paper is to analyze the consequences of this new setting using Finland as a case. Finland's big, export-oriented forest sector has undergone rapid change for almost a decade. Because of this, many different programmes and measures focusing on renewing the forest sector and forest use have been put in practice by many actors and the state.

However, the outcome of taken action is yet far from convincing. Renewal can be clearly seen at many levels, but the decline of forest-industrial production has continued at a worrying speed and renewal in the form of new products and activities (compensating for loss of turnover, stumpage and employment) has hitherto been modest.

This is why it is highly relevant to analyze recent development in Finland. In the paper, special attention will be given to how problems and possibilities have been defined by main actors and what kind of strategies and measures have been implemented.

Keywords: Forest industry, forest use, restructuration, policy, renewal capacity

Forest plantation in context of new Russian forest policy

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Abstract

The Russian market of Pulp and Paper industry is a major user of timber from hardwood trees. At this is moment market of Pulp and Paper experiencing a deficit of higher quality timber hardwood trees. Poplar, aspen and birch are the most fast-growing wood species in Russia. These are types of trees having prevalent area of distribution in Russian forest area. At once, timber of hardwood trees is valuable raw material for pulp and paper industry, furniture, plywood, match manufacture and other purposes. In Russia there is a large quantity of unused agriculture lands, (according to official statistics, in the Leningrad region agricultural lands is occupied 1.7 million hectares or 20% of the total area) where it is possible to create hardwood plantations, it is economically and ecologically expedient. It will be possible to receive finished products rather quickly (15 - 25 years, final felling). Establishment of plantations will provide Russian market with raw material in the North-West Russia employing a huge number of derelict agricultural lands.

That it was done needed to amend the legislation:

- a) To amend the Civil Code, Land and Forest Codes to allow entrepreneurs to create in Russia, large-scale and profitable "plantation business" also clearly describe the type of activity as the plantation forest growing
- b) To provide tax incentives, grants and soft loans from Russia and other countries to create to establish forest plantations (for example: mechanisms of agriculture support)

Keywords: unused agricultural lands, forest plantations, Forest, Land and Civil Codes.

Policies for stimulating use of wood-based energy – a comparative study across five European countries

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Abstract

Forest biomass is an important source of renewable energy in Europe, and predicted to play an increasing role in many countries to meet the EU 2020 targets on climate and energy.

The purpose of this paper is to compare national policy responses intended to comply with these targets, focusing on both supply and demand side policies for forest-based energy. National policy responses for enhancing forest-based energy production and consumption are examined in five European countries: Finland, Germany, Norway, Slovenia and Spain.

The methodological framework of horizontal and vertical interaction is used to investigate how new political targets at EU level interact with existing policies in a variety of national situations, the policies' internal consistencies and their relations to other forest-related policies and forest functions.

The results reveal considerable variations in national policy responses to the EU Renewable Energy Directive (2009/28/EC). The results also expose synergies and trade-offs between investigated policies and broader national forest policies.

Based on the national variations in status and the policy responses, challenges in comparisons across countries are identified and broader implications are discussed.

Female entrepreneurs – a shortcut to a more competitive and equal forestry sector?

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Abstract

There is a great potential in the Swedish forestry sector for providing services and products based on the forests 'soft' values and rural environment in combination with, or as an alternative to traditional timber production. An increasing number of women own forests and run businesses, but the forest sector is still one of the most gender-segregated in Sweden and has not followed the wider move in other business sectors towards greater gender equality.

This has now come to the attention of the government, which has found that increased gender equality is a precondition for the sector's continued development and competitiveness. To facilitate an equal and sustainable rural development with more jobs and increased growth, the Ministry of Rural Affairs has launched a special gender equality strategy for the forestry sector. The point of departure for this governance-oriented strategy is that women and men should have the same opportunities to own and exploit forests, and run or work in enterprises in the forestry sector. Based on this backdrop, this paper discusses to what extent a governance-mode soft steering approach such as the gender equality strategy can function as the foundation for implementation of a strategy aimed at both providing more gender equality and a more competitive forest sector.

The analytical framework of this paper draws on an issue attaining increasing prominence in research on genus and green industries - identities - in this case, women developing entrepreneurial identities. This paper proposes a number of factors that play into the establishment and development of such identities among women: overarching structural factors as well as social networks and social capital, cultural values and norms, as well as personal characteristics and motivation. The paper examines how the gender equality strategy can engage these factors in increasing equality in the forestry sector by among other things, promoting the development of entrepreneurial identities among women active in forestry.

Keywords: gender equality, forest policy, female entrepreneurs, governance, entrepreneurial identity

Private forest owners' choices of silvicultural systems in Finland

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Abstract

During the last years the ongoing changes in the forest policy have been a vastly debated issue in Finland. The needs of the forest owners have been one of the aspects that have been under scrutiny. This environmental anthropological study deals with one of the threads that preceded the present changes by focusing on the perceptions, reasoning and choices of Finnish private forest owners concerning different forest management strategies, especially even-aged and uneven-aged silvicultural systems. The utilization of different silvicultural methods has been a disputed topic in Finnish forestry already historically, and it has led to litigation cases between forest owners and the private forest administration since the beginning of the 20th century.

The reasoning of the forest owners has been studied by conducting in-depth interviews in Northern Ostrobothnia, Finland in 2005-2007 and by analyzing the documents of three court cases that occurred in 2004-2008. The analysis applies political ecology framework, which pays attention to the connections of the human sense-making to the broader political, economic and historical background and to the construction of knowledge and power. The results unveil differences in how forest owners perceive silvicultural practices. Identical goals, e.g. economic profitability and biodiversity, were used as arguments for both silvicultural systems, but the premises differed and the reasoning led to diverging silvicultural outcomes. The same problematic became apparent in the court cases. The results indicate the importance of paying attention to the varying needs of forest owners in the alteration and application of the Finnish forest policy.

Keywords: Forest regeneration behaviour, political ecology, environmental anthropology

Changes and reforms in the Estonian State Forest management – is there some influence to the private forestry?

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Abstract

In summer 2008 structural reforms in the Estonian state forest management were carried out. The Estonian State Forest Management Centre (RMK), with its new approach, started to work on 1 July 2008, at which time they switched from territory-based management to a functional management scheme. The aim was to create a more efficient organization and to decrease the staff number. The entire process and discussions about the changes were highly controversial and emotional, as about 300 employees were laid off or left the company.

Prior to the reforms a survey was carried out, forecasting the results of changes by different stakeholder groups – positive and negative impacts for the forest sector, future possibilities for the dismissed persons, (e.g.) will they be innovative and start forestry-related innovations and/or entrepreneurship; will there be more services for private forest owners; positive and negative impacts for the rural development and local governments (municipalities). An additional survey was carried out in the summer of 2009. The aim was to find preliminary results of the reforms, especially in the field of forestry-related innovations and entrepreneurship in rural areas and impacts on local governments. The other aim was to compare the respondents' attitudes and comments to similar questions before and after reforms.

The last small changes in RMK took place in 01 March 2013, where RMK combined the tasks of forest ranger and forest surveyors. As a result 23 former forest rangers were dismissed, as they did not pass the exams for forest surveyor (needed by forest Act), also some former forest surveyors had to relocate, to take over the positions on former rangers.

In first week of March the questionnaires were sent to the former and current RMK forest surveyors and forest rangers. Some questions were related to the 2008 reforms (what do they think now about 4.5 years after reforms), then what they think about current reform and will it have some influence to Estonian private forestry. The dismissed foresters were asked about their attitude and future plans – e.g. are they trying to find a job in Estonian private forestry, are they planning to go to work in foreign countries, are they planning to stay within forestry or are they planning to change the field of activity. In few weeks are planned some qualitative interviews with some selected informants.

As the survey is on-going, there no certain results to be presented in this abstract. Now, just 2 weeks after reform, seems that the hypothesis about positive influence to Estonian private forestry was wrong, as RMK partly miscalculated something, they need more experienced foresters and majority of dismissed rangers can return to the company after passing the exams of forest surveyors. That's why the current abstract has more than 250 words and has a preliminary title; the final title is clear in May 2013, after processing the survey results. The other topic could be related to the 2008 reforms and opinions before the reforms, 1 year after reforms and 4.5 years after reforms.

Keywords: Forestry reforms, Public forests and governance, private forestry

Regional Analysis of Social-Economic Value of State and Private Forests in Latvia

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Abstract

Forest is an important natural resource to the Latvian economy. According to the data of the Central Statistical Bureau of Latvia, the total forested area is 3.5 million hectares, covering 56.9% of the Latvian territory. This puts Latvia among the most forested countries in Europe.

In 2011 the export value of forestry output was 1.18 billion lats, the value of final goods 1.34 billion lats and its share of gross domestic product stood at 5%. 50.3% of all Latvian forests are state-owned and the remaining 49.7% are under different ownership. Forest provides economic, social and ecological benefits. Sustainable forest management includes evaluation of those basic values - social, ecological and economic. Forest owners need to evaluate all the functions of the forest and to understand their social, economic, and ecological significance.

The analysis of the interactions between structure of forests stands and its value, geographical localization, employment and input in export balance will be aim of this study. The results show that forest sustainability depends mostly on the standing volume of the stand and its ecological value. The most sustainable managed forests are located in Western and Central- Eastern part of Latvia. Forest sector has significant input in employment rate in the state.

Keywords: forest sector, sustainability, regional analysis, socio-economic value, Latvia

Coordinating multiple systems for forest management: Impacts of a de-regulated forest policy in Sweden

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Abstract

Forest certification was initiated as a result of the inability to adopt a global forest convention to guarantee ecologically and socially sustainable forestry. In that, it can be seen as an answer to the increasing problems of regulating finite and spatially situated resources in a globalizing context, with for instance large multinational forest corporations impacting resource use and state governance. Sweden constitutes one of the national cases with most certified forest, largely as an answer to ongoing market demands and the early 1990s deregulation by the Swedish parliament of national forest policy, where certification has functionally come to support the implementation of current forest policy. However, given this de-regulated context, forest policy in Sweden is nested within a context of multiple criteria for sustainable forest management that – in a rising scale – include legal requirements, the national Swedish Forest Agency's advice, environmental quality objectives, two certification standards; Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification Schemes (PEFC), specific forest company policies, and, finally, demands in public discussions for a higher level of biodiversity protection advocated by environmental NGOs.

This study analyses this complex context of multiple criteria for sustainable forestry, with a specific focus on the different levels and prescribed requirements for environmental protection. Drawing on a policy review of official documents and semi-structured interviews, the paper illustrates the organizational challenges of contemporary Swedish forest governance and shows upon problems pertaining to the implementation of sustainable forest management in a governing system that needs to relate both to a number of levels, contexts and organizational systems.

Keywords: complex governance, forest certification, forest policy, implementation, Sweden

Making the Forest Governable – Governmentality, Statistics and Environmental Subjectivities in the Swedish Forests

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Abstract

How is forest governance rendered possible? The Swedish forests cover vast areas from the north to the south of the country. The ownership of this forest is in addition dispersed among a large number of private and public actors. To govern such a sector seems like daunting task.

Despite this have we in Sweden had a national forest policy for well over 100 years and the Swedish state have certainly tried to influence and control the use of the forests for much longer than that. How is this rendered possible?

This study is informed by the concept of governmentality as an analytical approach to study state steering. The study uses three analytical concepts derived from the governmentality literature: rationalities of government, technologies of government and environmental subjectivities. These concepts are used to analyse the ideational foundation of Swedish forest governance, the concrete practices used to govern the forest sector and the private forest owners' understanding of the forest. The paper investigates how the Swedish forests are, and have been, made governable by studying three episodes in the history of Swedish forest governance; the governmentalisation of the Swedish forests in the late 1800s and early 1900s, the practices of the National Forest Survey and a recent policy for environmental protection called the Komet program.

Swedish forestry is especially interesting from this perspective since it is a crossroads of private ownership, central steering and a view of the forests as a national resource, which makes it an intricate governance challenge.

Keywords: Governmentality, Swedish forest politics, steering practices, environmental subjectivities

Nature vs. Nature: Conflicting discourses in Swedish Nature Conservation

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Abstract

There is an on-going debate on the role of protected forests and our relationship to them, spurred by a paradigm shift in ecological theory which undermines the assumptions behind the traditional hands-off approach to protected area management, as well as by the rise of ecological restoration, which holds the promise of assisting the recovery of degraded ecosystems while at the same time opening up many questions on what is considered 'true' or valuable nature and the extent to which active intervention in nature is appropriate.

In this paper, I use argumentative discourse analysis to study a proposed national strategy for the management of protected forest areas in Sweden and the intense debate it has spurred among Swedish conservation professionals, analysing conflicting representations of nature and conservation needs, how they are institutionalized and contested, and what the effects are in terms of which conservation goals can be achieved. I find that a preservationist discourse centring on naturalness and pristine nature is at once challenged by and challenges a more interventionist discourse around adaptive management and biodiversity, where the former discourse is strongly institutionalized in the regulation of individual protected areas while the latter is institutionalized at higher policy levels. The outcome of the debate may be characterized as 'a balanced approach', retaining elements from both discourses, while the struggle on the institutional level continues.

Keywords: naturalness, ecological restoration, protected areas, forest, Hajer

Analysis of coherence in climate change policies: an ecosystem service approach to forests as carbon sinks and energy resources

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Abstract

Ecosystem service concept has been seen as a way to help policy-making. Acknowledging the trade-offs between different services can help to protect the assets in nature that humans use and depend on. A crucial point in the trade-offs between different services rises with policy aims to mitigate climate change as wood energy and carbon sink are conflicting services.

In this study, we assessed whether policies at the national level alleviate or aggravate the trade-offs between these services in Finland. We analysed the intentional and unintentional impacts that policies from several sectors have on the demand or supply of these services. In general we found more policies targeting the demand than the supply and moreover, wood energy was more favoured by the policies than carbon sink. Most of the conflicts between these services occurred with the policies that were intentionally strengthening wood energy and other areas closely related to it (e.g. renewable energy in general or industrial fellings). In contrast, the policies intentionally strengthening carbon sink or unintentionally steering both of the services created mainly synergies. In order to gain the largest mitigating benefit, both of these services should be fitted into the same forests. Thus the assessment of the existing regulation steering the two services brings a good basis for designing the future policies where the balancing of trade-offs in ecosystem service production is central.

Forests as Carbon Sinks: A Dynamic CCS Benchmark Analysis

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Abstract

Recent climate modeling suggests that in order to attain the target of a 2° increase of global mean temperature, worldwide GHG emissions have to be negative between 2060 and 2070. Forests are a key opportunity to remove carbon from the atmosphere in a biological manner. Their potential for sequestration exceeds the actual carbon stock in the atmosphere. At the same time, the forestry sector is responsible for 15-20% of global emissions.

The paper analyzes the suitability of forests as a means for controlling climate change in a dynamic general equilibrium model. In this model, the production of energy with fossil fuels causes carbon dioxide emissions. The emissions are regulated by a policy-driven certificate market. Carbon dioxide can be captured biologically through forest sequestration or technically, e.g. by the use of CCS. A clean energy backstop technology completes the set of available abatement options. The forest sector is the focus of the analysis. Detailed age-class modeling provides cohort-specific insights into the trade-offs between timber production and carbon sequestration. Optimization techniques and numerical simulations are used to describe the model's equilibria and trajectories as well as their sensitivities.

Keywords: carbon sequestration, dynamic general equilibrium, age-class modeling

Varying perceptions of climate change risks and adaptation among stakeholders of the Swedish forestry sector

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Abstract

A large share of the contemporary literature about climate change adaptation focuses on public policy and factors that constrain the ability or will of governmental authorities to implement adaptation measures. A growing literature calls into question the explanatory power of determinants-based approaches to adaptive capacity to reliably predict and conclusively explain the causes and impacts of adaptive action taken by individuals. It has long been established that an individual's perception of and behavioral response to climate change is determined by deeply-rooted values, attitudes and experiences with environmental change. Research on cultural cognition and environmental risk perception indicates the existence of interpretive communities that differ in their values relating to equality, authority, individualism and community. Based on this scholarship, we argue that how individuals make sense of climate change is important in shaping their responses to climate change, including their understanding of and support for policy and their willingness to change behavior.

This study examines to what degree the perception of climate science, climatic risks and preferences for adaptation measures differs among stakeholders of the Swedish forestry sector.

We ask if there exist different types of attitudes and how they can be explained by worldviews, values, objectives, emotions, previous experience with extreme events and social and epistemological trust. Data for this research comes from a quantitative survey of Non-Industrial Private Forest Owners (NIPFO) and forestry advisors in Sweden. Results from this study help to understand to what degree science communication and political action can encourage climate change adaptation among different forestry stakeholders.

WG 9 Representations and representation in natural resources governance

Procedural justice in urban environmental governance: diverging interests and public participation in urban land use

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Abstract

Fair outcomes and processes call for equality in the recognition of individuals or groups and their requirements. Differing aspirations and interests of diverse resident groups such as youth and ethnic minorities pose a particular challenge for implementing justice principles in urban governance processes. Procedural justice is a dimension of environmental justice focusing on the analysis of equity within a political or decision-making process underlying environmental outcomes. Procedural justice constitutes of elements such as comprehensive technical groundwork, relevant and representative participants, rights to participate, access to information and lack of bias (Maguire & Lind 2003; Gross 2007).

A diverse Helsinki suburb of Meri-Rastila serves as an intriguing case where several local and regional interests are focused on a single forested waterfront area planned for residential development. In this study the land use planning process and parallel public involvement processes associated with the area will be analysed from the perspective of procedural justice. The research aims to examine how the principles of procedural justice are followed, including questions of which parties have an opportunity to influence the process, which interests are included in the process and which in the outcome – and which interests are absent.

In addition to document-based data the research will use semi-structured interviews with stakeholder and representatives of both involved and less active residents. The results will provide understanding on (in)equity questions present in public participation processes and on justice issues in current urban governance practices in Finland.

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Keywords: procedural justice, environmental justice, urban land use, urban governance

Determining the ‘public interest’ in contested landscapes: who determines what it is and how it is determined?

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Abstract

Contestation over land rights and expectations of use can reflect a broader lack of understanding about how multiple and potentially competing rights are represented within legislative and planning frameworks. In Australia, recent intensification of competition for land use between the mining and agricultural industries led the Queensland Government to release a policy framework on protecting the state’s strategic cropping land for public comment in August 2010. The intention of the policy is to protect land identified for strategic cropping use from any development that may alienate it or diminish productivity, except in “special circumstances” where there is a “significant public interest benefit”. Many of the submissions made throughout the two year consultation process questioned not only the concept of public interest in land but also who determines what the public interest is and what decision-making frameworks would be used for evaluating trade-offs between different land values. Through examining these public submissions and the government’s responses to the concerns raised, we explore how public participation might be better integrated into the policy development process in order to determine ‘best’ value land uses in the case of the current conflict between the mining and agricultural industries in Queensland, Australia. Thus we use this recent policy example to explore a mode of environmental citizenship that might use public participation to mobilise more deliberative forms of engagement that have greater capacity to deal meaningfully with issues of knowledge, risk judgements, cooperation and trust that underpin these land use conflicts.

Keywords: conflict; consultation; land use planning; policy; public interest

The Growth Wagon and the Three Runaway Horses

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Abstract

This paper tells about how a climate sociologist uses a drawing, which an artist has created for her, to explain and comment her research findings to researchers, politicians and the public. The drawing is available at <http://earthcitizenblog.wordpress.com/> and is called The Growth Wagon and the Three Runaway Horses. The three runaway horses are named Coal, Oil and Gas, and they are pulling a wagon filled with earthlings toward the fossil cliff. The coachmen (are they politicians?) are supposed to control the horses, but they do not try very hard. The wagon has reached a crossroad where it has to make a sharp turn to leave the road leading to the fossil cliff and enter the road to a sustainable future. Is it possible to slow down the horses and make the turn? This would mean that the fossil industry slows down its activities dramatically and stop extracting fossil resources for combustion. Three other horses, named Sun, Wind and Rain, are also in the picture, grazing in a field beside the road to a sustainable future. The slowing down of the growth wagon is a kind of recession or de-growth, but with new horses another kind of growth is possible. In the picture some earthlings have left the fossil growth wagon and started to walk towards a sustainable future. Is this becoming a people's movement? The paper concludes that the picture facilitates the recognition and discussion of complex climatic, economic, social and psychological mechanisms.

Keywords: de-growth, people's movements, climate sociology, moral sociology, political art

Constructing a legitimate argument – narrative techniques in the Ghana-EU VPA

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Abstract

The focus of this paper is the use of narrative analysis for understanding how policy output is shaped during processes of implementation. A typology is developed identifying six specific types of narrative techniques used in policy argumentation: Framing, Omission, Fitting facts, Means-to-aims, Glorifying, and Scapegoating. The typology is used for assessing and explicating the narrative techniques used by groups of stakeholders engaged in the formulation and implementation of the EU-Ghana Voluntary Partnership Agreement (VPA) aimed at improving forest governance and combat illegal logging. The assessment is based on 27 interviews with 22 respondents from six stakeholder groups. Analysis of the narrative techniques shows how certain techniques enables stakeholders to establish support to their arguments by glossing over potential areas of tension and argument inconsistencies. By explicating the use of certain narrative techniques the paper illustrates the potential usefulness of the typology for policy analysts and development practitioners. It also discusses the implications of techniques used for the practical feasibility of the Ghana-EU VPA.

Clashing coalitions: a discourse analysis of an artificial groundwater recharge project in Finland

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Abstract

The purpose of the paper is to increase understanding of the dynamics of knowledge production in the context of large-scale environmental projects. In particular, the paper analyses the discourse coalitions that formed around an artificial groundwater recharge (AGR) project for the Turku Region in Finland. The project was initiated in 1999 as a response to the lack of a fresh water source but the actual production of artificial groundwater was delayed until 2011 because of the strong criticisms levied by civil society organizations. The material for this study consists of over 400 articles and opinion pieces, which were collected from local and regional newspapers from the time period 2000-2011 and analysed using Hajer's (1995) discursive framework. Tentative results of the study indicate that the opposing and defensive coalitions both consisted mainly of engineering professionals, who utilized similar expertise-based factual arguments to support their cause. Moreover, the storyline linking the opposing coalition focused specifically on the threat that the AGR project was believed to pose on the surrounding environment. The paper thus participates in the academic discussion on the role of lay and expert knowledge in environmental policy-making. In terms of societal implications, the paper should prove insightful for decision-makers, designers and citizens involved in large-scale environmental projects.

Keywords: infrastructure projects, local government, civil society, expertise, knowledge

Free, Prior and Informed Consent. A case study of a consultation process prior to a land use intervention in Bolivia

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Abstract

The pursuit of land for large-scale enterprising increasingly involve customary land. The openings of the forests and other remote areas are often followed by logging, then settlers or larger agribusinesses. For the original users this may have serious consequences. In order to counter such consequences, requirement of consultation of the communities subjected to intervention has been included in international, national and company policies. A key principle is the right to Free, Prior and Informed Consent (FPIC). With the focus on FPIC in policies, there is a need to explore how to implement the principles in practice. Only few studies of consultations in the context of land use interventions exist, and guidelines are few and scattered. This study examines the perceived content and implications of an agreement reached through a consultation process in an Indigenous Territory and National Park, TIPNIS, in Bolivia, and explores the perception of the purpose of the consultation itself among the involved parties. A case study of consultations prior to a planned highway through this Territory, inhabited by three indigenous peoples, will provide data on relationships between parameters such as educational level, societal structures, concerns, knowledge concepts, leadership and discourse in order to explore how these influence the perception of purpose, content and implications, on the basis of which consent is given or withheld. The findings will contribute to a more general understanding of significant mechanisms in such processes. This would be a step further in the attempt to understand how the abstract principle of Free, Prior and Informed Consent can be transformed into a real process, while attempting to live up to its ideals.

Keywords: TIPNIS, FPIC, Indigenous Peoples, decision-making

When natural resources conflict

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Abstract

The modern mining industry, nature-based tourism, forestry, reindeer herding, subsistence livelihoods (berry picking, hunting, fishing etc.), recreational use and nature conservation are all forms of land use present in Finnish Lapland. The practices, aims and interests of said land-users, are often overlapping and sometimes conflicting and raise continuous debate on the local, national and even global levels.

The aim of this paper is to understand and analyze what in fact is at the core of a natural resource conflict. In doing so, I expect to give new insights to how societies could reduce, govern and avoid unnecessary local level conflicts between different interest groups in natural resource use.

I approach the matter by looking at cases of land-use in Finnish Lapland. I give examples from two cases where the mining industry, nature-based tourism and reindeer herding try to coexist. I point out how different (and potentially contested) natural resources are constructed, represented and reproduced in the practices and discourses of the different livelihoods. The practices (and knowledge connected to the practices) sustain and renew the natural resources in question and under exploitation. In a conflicted situation the different knowledges are justified and challenged and the contested nature of the resources represents itself.

Understanding those decisive moments where conflict is at least potentially present and the process of deliberation that follows is essential for governing natural resources in a more sustainable manner.

Keywords: natural resource, practice, knowledge, environmental governance

Representation and knowledge in the management of the Laponia World Heritage site

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Abstract

The Laponian Area in Northern Sweden was inscribed on the World Heritage List in 1996, based on both outstanding natural values and the living cultural heritage of the Sami people. The site includes the lands of nine Sami reindeer herding communities, who made clear from the start they would not accept a management arrangement without strong Sami influence. The Swedish government and the concerned municipalities, however, were initially not prepared to support a Sami majority in the management organisation. It took 15 years of collapsed and resumed negotiations before an agreement could be reached. A new non-profit organisation including state, regional and local actors, where the Sami hold the majority on the board of directors, is now responsible for the management of Laponia.

This paper interrogates the new management model with a focus on the discursive construction of subject positions for the different actors involved – the negotiations and representations of political subjectivities, the power relations between actors, and the use of different forms of knowledge in management and policy processes. Based on analyses of policy documents and interviews, the paper discusses how participants understand their room for manoeuvre and negotiate their position, and how discourses on natural resource management, heritage, and Indigenous peoples frame the influence and representation of different actors in the case of Laponia.

Keywords: UNESCO World Heritage, Laponia, Indigenous, protected areas, co-management, discourse

Are principles of scientific forestry useful to communities' forest management practices? Stories from Nepal's community forests

Rebecca Leigh Rutt, Bir Bahadur Khanal Chettri, Jens Friis Lund, Ridish Pokharel, Santosh Rayamahji, and Thorsten Treue

Abstract

Participatory forestry, i.e. governance approaches that involve local communities in the management of forests they live in and around, is based on expectations of improved environmental and socio-economic outcomes. The latest global assessment found that local communities are officially involved in the management of approximately 22% of the World's forests, and that this share is increasing. Yet, encouraging evidence on the conservation and in particular socio-economic outcomes is scarce. This scarcity of evidence has, among other, been attributed to a dearth of carefully designed studies, but in particular to a disparity between the theory of participatory forestry and actual implementation practices. A common problem is forest bureaucracies' reluctance to actually transfer power over forests to local institutions, often justified by concerns over local communities' (lack of) management. Scientific forest management plans (SFMPs) have, thus, become a precondition for transferring authority to local institutions. These SFMPs appear remarkably similar across national participatory forestry processes, and follow the scientific forest management principles that originated from present-day Germany in the early 19th century onwards and adopted by forest training institutions and forest bureaucracies throughout the world.

In addition to their claimed role in safeguarding nationally important environmental values, SFMPs are justified by their practical relevance and indeed necessity in local communities' day-to-day forest management. The quality of a SFMP, however, depends on the quality of data informing it and plans are useless if forest inventories are done haphazardly or too infrequently. Unfortunately, forest inventories are very resource demanding, so resource strained forestry officials face incentives to take shortcuts. Further, research indicates that local communities draw on other forms of knowledge to inform their management practices under participatory forestry, i.e. indicating that communities consider SFMPs as official prerequisites to gain recognized authority over forests rather than relevant support to practical forest management. This raises two questions (i) whether the forest inventories underlying SFMPs are, generally, of a sufficient technical quality? and (ii) whether SFMPs, irrespective of their technical quality, are useful to communities' management practice?

Based on detailed case studies in two locally managed forests in Nepal, this paper engages with these two questions. The empirical basis for the paper is detailed studies of conservation impact and the underlying management processes and rationales behind this impact in three locally-managed forests in Nepal. In each of the three sites, we do a time series analysis of remote sensing images to understand forest development over a period from before to after the implementation of locally-based management to understand its conservation outcome. The remote sensing images analysis is supported by detailed forest inventories. To understand the management processes and rationales behind this management, including the role of SFMPs and locally held views on the process of their elaboration and their quality, we have interviewed present and past forest managers at the community level, including during forest walks, as well as recorded and analyzed written documentation, in the form of forest inventory results, management plans, forest products extraction records, financial records, and meeting minutes from the community level management committees. The

interviews were recorded and those recordings supplemented detailed minutes taken during the interviews in the subsequent analysis.

Results indicate that SFMPs have been elaborated rather haphazardly, and that local communities base their management on other sources of knowledge and with notable success in the sense that they seem highly aware of the condition of the forests they manage and that their forest management practices have contributed to sustainable forest development.

Strange Bedfellows: Encounters between the Postcolonial State, Science and Indigeneity in the Making of Kenya's Water Towers

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Abstract

The Mau Forest Complex (MFC) in Kenya is the largest remaining closed canopy forest block in Eastern Africa. It is also considered critical as a "water tower" in the region, ie. an aquatic ecosystem, catching and storing rain and feeding the surrounding rivers and lakes with water. In the past three decades, substantial parts of the forest have been settled and cleared for agriculture and logging, resulting in widespread deforestation. Popular belief, indigenous knowledge (Ogiek), environmental NGOs (such as the Green Belt Movement), the state and western science predominantly orchestrated by UNEP (headquartered in Nairobi) all believe that this deforestation causes streams to dry up and water aquifers to drop, authorizing a grand contemporary scheme of evictions and re-settlements of people in the forest.

The paper will explore what produced this belief and the unlikely political and epistemic alliance between common sense, indigeneity, environmental NGOs, the postcolonial state and western science. How was the evidence for the deforestation=drought connection established? Which environmental models and concepts of nature traveled to Kenya to predicate this contemporary alliance? I hope the exploration of some of these questions will lead us to ask the right questions about the relationship between politics and knowledge of nature and empire and environment, writ large.

Assessing representation in the implementation of climate mitigation and adaptation interventions: Developing methods for Tanzania and Nepal

Celeste Lacuna-Richman, Jenni Kauppila and Irmeli Mustalahti

Abstract

Much of the climate change agenda seems to be generated in international forums and delegated to national governments for amendment and implementation, and the citizens of the country in question often become passive entities in the various policy processes. Yet, these are the same people who are and will be heavily impacted by mitigation and adaptation interventions. For this reason, finding ways to assess the level of representation in-country is necessary.

Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD+) and National Action Plans for Adaptation (NAPAs) are such international initiatives that affects greatly the forest policy and governance of its partner countries. Tanzania and Nepal are likely such heavily-impacted countries. While the state-level involvement and representation in various international and national forums can already be observed, ground-level implementation of the programs and impacts within these countries are unknown. In a forthcoming research project, a team from the University of Eastern Finland (UEF) and its partner institutions will use a variety of methods, to determine the extent of interventions related to REDD+ and NAPAs in selected areas within Tanzania and Nepal. Crucial issues in the study are the existence and extent of citizen representation in these interventions, and the local impacts resulting from implementation. Research methods that could be used to examine these issues will be discussed in this paper.

Keywords: REDD+, NAPAs, impacts, methods, Nepal, Tanzania

A framework for assessing governance capacity: an illustration from Vietnam's forestry reforms

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Abstract

Governance has become a central area of research in different disciplines of social sciences over the last two decades. Although the concept has been examined in many studies, it is contested and used in different ways with different meanings. One of the academically under-exposed aspects of the concept is the 'quality' of governance.

This paper introduces a framework for assessing governance. Based on the Policy Arrangement Approach, the framework pays attention to both governance process and outcomes. The operationalization of the framework is illustrated by the assessment of the policy of forest land allocation in Vietnam's forestry reforms. The illustration shows that the framework is very useful for the examination of different dimensions of governance and their inter-linkages. Findings highlight the interplay of discourses and rules of the game in the formulation and functioning of actors' networks for collective actions in sustainable development.

Keywords: governance, Policy Arrangement Approach, forest land allocation; Vietnam's socio-economic reforms.

The justifications for and functions of knowledge standards in natural resources management

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Abstract

This paper presents a discussion of the application of knowledge standards in natural resources management and how these have implications for the representation of interests in decision-making processes concerning such management. The starting point for the discussion is an observation that the application of knowledge standards in natural resources management processes seems to counteract the attainment of stated social and environmental objectives of such management, i.e. safeguarding of environmental values while supporting equitable social and economic development. Scientifically-based natural resources management involves costly and technically demanding procedures to attain knowledge of the status and development of the natural resources in question, which may inhibit its implementation and the involvement of resource users in management. Further, the application of procedural, numerical, and literacy-demanding knowledge standards may privilege certain groups or interests over others in decision-making processes concerning natural resources management. Following an outline of these observations, the paper goes on to present four hypotheses about the possible functions, underlying official justifications, of the application of the above-mentioned knowledge standards in processes of natural resources management. These hypotheses include (i) knowledge standards are useful for bureaucracies in negotiation of natural resources management rights and responsibilities with local actors; (ii) knowledge standards are useful to community-level elites in processes of exclusion of others from influencing decision-making; (iii) knowledge standards are a key argument for the need for, and thus continued existence of those imbued with, technical expertise and; (iv) knowledge standards are an integral part of the self-understandings of technical experts and bureaucracies involved in natural resources management processes

From resistance to resilience: Media discourses on flood governance in Mexico

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[no abstract available]

From deliberative to agonistic democratization? Avenues for legitimate climate governance in the post-2012 era

Magdalena Kuchler & Eva Lövbrand

Abstract

In recent years, the study of global climate politics and governance has been informed by normative theories of global democracy. The failure of the interstate system to produce an effective response to climate change has prompted green scholars to explore alternative avenues for more efficient and legitimate solutions to this profound problem facing humanity. Deliberative models of democracy – that share a basic commitment to free, inclusive, and unconstrained deliberation in the public sphere – are often invoked as a promising ideal against which the empirical practice of climate governance can be normatively evaluated and scrutinized. Interestingly, few scholars in this field have explored the analytical potential of agonistic ideals of democracy as an alternative route for the democratization of climate governance. Derived from Laclau's and Mouffe's radical democratic theory, the agonistic ideal is one that highlights conflict as a positive force and recognizes effective pluralism as a central component of a legitimate democratization process. In this paper we compare how deliberative and agonistic models of democracy may inform the practice of carbon market governance in the years to come. The paper first provides a theoretical framework by revisiting Eckersley's and Dryzek's arguments for deliberative democratization of climate governance and turns to problematizing the premises of the agonistic model as an alternative critical interpretative lens. As a second step we compare how these two ideals match the practice of the Clean Development Mechanism (CDM) and REDD instruments respectively, and assess what routes for more effective and legitimate carbon market governance they prescribe.

Keywords: climate governance, deliberative, agonistic, democratization, carbon market

The emerging shale gas battlefield in the European Union: the case of Poland and Sweden

Magdalena Kuchler

Abstract

Shale gas – unconventional natural gas extracted from shale reservoirs using hydraulic fracturing technology called fracking – is the focus of increasing attention in the European Union. The potential expansion of its production is perceived as strategy to diversify energy supplies and reduce dependence from gas imports as well as a source of “clean” fossil fuel that could help reduce carbon dioxide emissions and contribute to climate change mitigation. However, shale gas extraction has also raised serious concerns and criticism regarding the risk of negative impacts on environment and human health, including groundwater contamination by hazardous chemicals and methane emissions leakage.

This paper provides an insight into and comparison of the emerging shale gas debate in Poland and Sweden – two EU member states with estimated unconventional gas resources in their territories. These national-level cases exemplify distinct forms of shale gas representations that are translated into decisionmaking and stakeholder participation. By implementing governmentality as the main analytical perspective the aim is to problematize how different rationalities (discourses) invoke powerful framings on public participation in the debate and (re)produce identities of participants. The analysis highlights two contrasting patterns. The case of Poland reveals a tendency to paint opponents of fracking in a bad light and downplay or even exclude citizen group engagement. Whereas the case of Sweden shows that, while still at a very small scale, shale gas projects have already sparked a strong resistance of environmental and local citizen groups but their resilience to exclusion is to be tested along with political inclinations.

Keywords: shale gas, fracking, governance, participation, Poland, Sweden

WG 10 The Green State

Lost in Transition? The Green State in Governance for Sustainable Development

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Abstract

Recognising continuing unsustainability as a result of governing failures, governance for sustainable development (GSD) has become the dominant approach to address environmental problems, promoting society-centric modes of governing and challenging traditional state-centric environmental governing. Here I identify key dimensions of GSD; clarify how GSD challenges the state; and argue that the state retains key merits for environmental governing. Rather than being lost in transition, the green state must play a central role in governance for sustainable development.

Keywords: governance, sustainable development, environmental governing, green state, environmental reforms

Constituting Climate Statehood: A Review of the Literature on Non-State Climate Politics and Governance

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Abstract

The state has always been difficult to define. Despite the proliferation of literature on the subject in political theory, comparative politics and international relations, the state's boundary with society continues to appear elusive, porous and mobile. In this paper we seek to interpret how this boundary is conceptualized and drawn in the literature on non-state climate politics and governance. This is a literature that has developed in parallel to, and often as a critique of, the scholarly preoccupation with state action on climate change and approaches non-state actors as possible agents of change within and beyond the international climate regime. While this scholarship has helped us to assess the shifting nature and location of agency and authority in global climate governance, it has often taken the non-state category for granted. Passively defined by the actors or governance procedures not associated with the state, the nature and constitution of non-statedness remains black boxed in academic analyses of climate politics and governance. In this paper, by contrast, we seek to open up this black box and hereby assess how the contemporary scholarship on non-state climate governance theorizes the nature and limits of the state. To that end our study draws upon a broad literature search in the database SCOPUS using the search words non-state, private, non-governmental and climate change. By sorting the resulting journal articles according to four state-theoretical traditions, this paper explores how the nature and limits of climate statehood are understood and constituted scholars in this field.

Governing the environment: Guidance documents and the 'making up' of expert environmental practitioners

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Abstract

This article reports on exploratory research employing governmentality as an analytical lens to examine the power dynamics of environmental governance, and in particular the question of what is at stake and for whom. The research focuses, in particular, upon the role guidance documents play in the subjectification (or 'making up' (after Hacking 1986)) of expert environmental practitioners who use the policy instrument environmental assessment (EA). Guidance appears to be an important mechanism for (re-)constructing policy discourses and the subjectivities of expert environmental practitioners for it is used extensively by governments and their agencies to interpret policy positions or proffer advice on topical subjects. Yet its contribution to the subjectification of experts has received limited scholarly attention. Constructions of the environmental practitioner embedded in three purposefully selected guidance documents are analysed using interpretative research methods. The analysis surfaces expectations of the skills, expertise and orientations of the expert environmental practitioner contained in the guidance documents and the divergent rationalities of rule which underpin them. Governmentality is found to provide a compelling analysis of what is at stake in the widespread, but apparently mundane and largely taken for granted, strategy of publishing guidance. This exploratory research raises numerous empirical questions about the politics of guidance documents and the article concludes with recommendations for future research.

Keywords: Governmentality, power, expertise, environmental governance, environmental assessment, subjectification.

Negotiating the boundaries of polity and politics - Governing green growth and innovation in Finland

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Abstract

Through an example of recent Finnish policy debate around green growth and green economy, this paper discusses how certain historically constituted and culturally embedded modes of policy negotiation and argumentation shape and are shaped by national level politics. On the one hand, particular state orientations, in Finland the consensus-seeking “technology-and-industry-know-best”, with respective politico-institutional structures and historically developed modes of negotiation tend to define the boundaries, legitimate participants, and credible forms of argumentation in national policy debates. On the other hand, various actors contribute to shaping politics by employing particular contextually embedded policy styles in specific questions and debates, thus having a formative influence in state orientations and discursive and politico-institutional structures. Building on constructionist neo-institutionalism, discourse theory and the agonistic conceptualisation of democracy, this paper addresses the changing role of the state in this framework. It discusses the basis of legitimacy for various arguments and forms of politics concerning green technology as shaped by Finnish historic-political trajectory and recent science-society interplay, and provides insights into a broader sociological debate concerning the mutually constitutive relationship between politics and polities.

Keywords: state orientation, governance, energy policy, green growth

Greening which welfare state? Confronting the ecological state with the realities of welfare state transformations

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Abstract

In this paper we explore the potential of cross-fertilization between research on welfare state reforms and on efforts to green the state in response to ecological challenges. In order to gain a deeper understanding of the conditions for an ecological state to emerge we relate welfare state studies to political ecology, that provide different conceptions of the ecological state and ways to green the state (e.g. green liberalism, greening welfarism, greening democracy), and to comparativist environmental politics that trace patterns of policy change and institutionalization for greening the state in practice. Recently some scholars have made analogies between the evolution of the ecological state and the genesis of once the welfare state. However, while providing insights on such similarities and on the kind of challenges environmental change poses for the welfare state, our concern is what challenges contemporary welfare state transformations pose for the efforts to green the state. How are we to understand calls for the revitalization of the state in light of key contradictions in welfare state developments such as the fiscal crisis of welfare states, liberalization of welfare policies and increasing inequalities? In this sense, the marketization of environmental policy and individualization of ecological responsibilities could be understood in analogy with the retrenchment and recommodification of welfare policy. Such welfare state developments has critical implications for the efforts to strengthen state competences and capacities for governing societies towards ecologically sustainable and socially just ends, e.g. in terms of legitimizing and organizing both ecological and social aspirations.

Keywords: Green state, Ecological responsiveness, Welfare state retrenchment, reform and transformative change

Building the 'Green State': Do Welfare Regimes Matter?

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Abstract

Authors such as Dryzek, Gough and Meadowcroft have indicated that social democratic welfare states and coordinated market regimes may be better placed to handle the development of the 'green' or 'eco-state' and the intersection of social and environmental policies than more liberal market economies and welfare regimes (synergy hypothesis). However, this hypothesis has as yet not been scrutinised in comparative empirical research.

Based on comparative empirical data from different sources, particularly Eurostat and the International Social Survey Programme, we carry out two research operations: First, by applying correspondence analysis we contrast macro-structural welfare and sustainability indicators of 28 European states and ask whether clusters largely follow the synergy hypothesis. Second, we raise the issue of whether differences in institutional and organisational capabilities of combining welfare with environmental policies are reflected in people's attitudes and opinions. With regard to the first issue, our results suggest that there is no quasi automatic development of the eco-state on top of already existing advanced welfare institutions. Representatives of both social-democratic and corporate welfare regimes are spread across established, emerging, failing and deadlocked eco-states. In terms of the second issue the results are mixed. While responses to the statements 'economic growth always harms the environment' and 'governments should pass laws to make ordinary people protect the environment, even if it interferes with people's rights to make their own decisions' did not vary according to welfare regime and market coordination lines, people from Nordic and selected corporate countries expressed more often than average their willingness to accept cuts in their standard of living in order to protect the environment.

Keywords Eco-state; welfare regimes; varieties of capitalism; Europe; correspondence analysis; attitudes.

Small Islands, Small Problems? How island states perform in provision of environmental public goods compared to continental states.

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Abstract

Small states – and island states in particular – have recently been shown to trump continental states on a number of collective action related outcomes. They perform well on indices of civil and political rights; they have provided bases for vibrant civil societies, and generally have higher income and productivity levels.

The argument developed and tested in this article contends that the same kind of logic applies to environmental public goods as well. However, the empirical analysis performed in this paper shows mixed results. Among the 107 environmental indicators we analyze, being an island only has a positive impact on 20 measurements. The results suggest that island states tend to outcompete continental states with respect to several measurements related to water quality but not in aspects related to biodiversity, protected areas or environmental regulations. In addition, the causal factors previously suggested to make islands outperform continental states have weak explanatory power. That is, the analysis of the environmental public goods, where islands perform better, shows that in respect to some environmental outcomes, factors such as homogeneity and fewer number of conflicts can explain why islands outperform continental states. Yet, in others, the observed effects seem to stem from their colonial history or geographical factors, such as isolation and territory size. We conclude the paper by discussing how these interesting findings can be further investigated.

Keywords: sustainable development; environment; island states; democracy

A Tale of Swedish Exceptionalism? Using Fuzzy Sets to Examine Climate Change Policy

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Abstract

Developed states share a common responsibility for producing the bulk of global greenhouse gas emissions. Yet, despite the threats posed by catastrophic climate change, the development of an ‘ecological state’ in response to climate change varies greatly. Why is this the case? Under the microscope are the 15 Annex II (‘developed’) states that are also members of the EU, including Sweden, Denmark and Finland, between 2006 and 2010.

This paper draws from the literature on welfare state development by employing ‘fuzzy set’ methods to determine how variables interact with one another to produce weak or strong climate change policy. In so doing, the states’ unique configurations of variables- namely pre-existing greenhouse gas emissions, GDP per capita, government ideology and the number of veto points- are isolated. It is argued that it is not necessarily the presence or absence of these variables that matters, but how they intertwine as causal configurations. The most significant of these configurations links strong policy with both a low number of veto points and left-wing government. However, the discussion section of this paper identifies Sweden as an exception, having been a policy pioneer despite a centre-right government during the period. It is argued that Swedish ‘exceptionalism’ results from the emerging status of climate change as a valence issue in the state. As a result, this paper suggests that further research into Sweden’s formulation of the first ‘Climate Change State’ is needed.

Keywords: Sweden, climate change, policy, fsQCA.

Governance and the environment revisited: Examining the complex effects of corruption on a large number of environmental measurements

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Abstract

This paper addresses what impact corruption in the state has on environmental outcomes. A literature has in recent year suggested that poor governance and corruption influence environmental performance and natural resource management negatively due to its corrosive effect on policy formulation and implementation. A large number of studies provide empirical findings for these claims. However, some authors have argued that the choices of empirical measure determine the reported results of these studies as measures of “sustainability” often differ widely. Yet, many studies still use single indicators when gauging the effect from corruption on the environment. We advance the field of research by analyzing the effect of corruption indicators on a large number ($n > 100$) of environmental measurements available for cross-country comparisons. The article is guided by the two following research questions: Does corruption has a negative impact on the environment as gauged by these measurements? According to the variations in our results, does corruption seem to have a negative effect on a certain type of environmental outcomes? By performing regression analysis aiming to explain the variance across countries in all of these measures we explore the influence of corruption on the environment. By providing a detailed analysis of what types of environmental measures that are affected by corruption we deliver important conclusions for this literature.

Keywords; corruption, green state, governance, environmental measurements

Greening the Danish state? A critical perspective on the recent transition processes towards a fossil-free society

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Abstract

The paper analyses the recent years' efforts of the national and local governments in Denmark in developing and implementing strategies for transition towards a fossil-free society, and the co-shaping of these efforts and the roles of a capitalist state. Theoretically the paper is inspired by Eckersley (2004) and her critical constructivist perspective on social agency in the shaping of state functions, Hajer's characterization of ecological modernization (1995), and Jørgensen's arena of development approach (2012), which suggests analyses of the shaping of sustainable transition processes through analyses of the actor worlds within an arena and their involvement in defining an arena's focus and its boundaries to other arenas.

Empirically the analysis shows that the previous Danish government's proclamation in 2007 of a vision about Denmark as a society independent of fossil energy in 2050 and the expectations to Copenhagen as host of COP15 in 2009 initiated development of visions and action plans about energy and climate from both national and local governments, NGOs, and business associations. More recently a national energy agreement about the period 2012 – 2020 was made among the vast majority of the political parties. Controversies show disagreement about how strong the ecological modernisation should be and how path dependent of existing business strategies it should be, and what role deliberative democratic initiatives should have. Important disagreements concern the roles of centralised power plants, foreign and domestic energy storage, domestic and imported biomass for bioenergy, waste incineration versus recycling, energy savings from building refurbishment, and changes in mobility patterns.

Keywords: arena of development, ecological modernisation, deliberative democracy, path dependency, fossil free society

Environmental Policy Integration – the case of sustainability in Germany

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Abstract

The term “sustainable development” (SD) has become more prominent during the last decades. Problems that have been emerging and mounting in all the dimensions considered to compose SD – the social sphere, the economical dimension and the ecological realm – result in raising public awareness of the topic. While most studies deal with sustainability from the perspective of performance of a given country or region, a new analysis of the Leuphana University Lüneburg and the WWF Germany tries to approach this field from the perspective of daily routines, institutionalization, cooperation and coordination practices of the legislative and executive branch of the federal state in Germany. The results of the analysis of SD politics and its integration in the political process – based on interviews conducted in every federal ministry and the political parties in the German parliament – are mixed. While high-level coordination bodies do exist, sustainability as a political-strategic topic is not often significant for legislative and executive institutions. Applying a strategic and relational point of view, it can be argued that different legislative branches represent different fractions within an existing baseline or general mode of accumulation. With this, the development towards a progressive and comprehensive environmental shaping state still remains incomplete. The study not only reviews existing flaws, but highlights also possibilities to overcome them - thereby making a contribution to the discussion about the design that may be most suitable for addressing the topic of sustainability effectively

Keywords: Government; Politics; Institutionalization; Coordination; Integration

Steering by objectives as a vehicle for change? The Swedish environmental objectives and sustainable development

Åsa Knaggård

Abstract

Steering by objectives has become the norm in an area of new public management. However, setting objectives rather than making detailed legislation can also be understood as a way for parliaments to communicate an environmental vision to as well as include all parts of society in the adjustment to sustainability. Steering by objectives thus holds a great potential for the transformation to sustainable development. The Swedish environmental objectives from 1998, organized in 16 areas under the main objective of handing over a society without problems to the next generation, is one of the most far-reaching in the world. In this paper the development and implementation of these objectives will be discussed. The aim of the paper is to critically examine their potential as a tool for sustainable development. How do the motives behind the creating of the objectives influence this potential? What happens when later governments interpret these motives in a new way? What effect do they have on the administration responsible for implementation? In short, do they remain vehicles for change over time and through the policy process?

WG 11 The quest for policy integration

Fisheries governance, legitimacy, and the quest for compliance: Assessing the value of stakeholder participation

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Abstract

The role of legitimacy has attracted increasing attention in fisheries research and fisheries policy. Many contributions to the literature on sustainable fisheries have emphasized stakeholder participation as a key measure for achieving high levels of compliance. Empirical evidence confirms that certain forms of stakeholder involvement are linked to certain aspects of legitimacy. However, the wider assessment of the contribution and value of stakeholder participation in fisheries governance depends importantly on how we specify the relevant objects, standards, and mechanisms of legitimacy, as well as how we classify participatory solutions within the dimensions of inclusiveness, scope, and depth. Developing a theoretical framework for exploring these links between participation, legitimacy and compliance, this study identifies trade-offs between different measures for compliance, and different standards of legitimacy. Addressing such trade-offs, the article argues that legitimacy is crucial for compliance, and defends a broadly instrumental, output-based approach for identifying optimal forms of stakeholder participation.

Keywords: fisheries governance, legitimacy, non-compliance, stakeholder participation, deliberative democracy, ecosystem approach

Transformation of European societies to respond to the challenges in the Anthropocen – the Swedish case of the region of the Mälär Valley facing 2050

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Abstract

The move into the period of the Anthropocen – within which we already have entered – is calling for dramatic changes of society in order to face the new emerging conditions and including shaping a constructive path into these new situations. Such needed changes – in terms of e.g. culture, politics, governance, production/consumption and investment patterns – calls for both theoretical considerations as well as practical/operational ones. In this presentation some early experiences from the Swedish part of a larger just started 4 year EU project COMPLEX will be presented. The emphasis is on the direction of change of society in the framework of the period up to 2050 that could match the already defined EU climate change politically framed goals of a (net) low carbon society. Our societies will have to handle not only the climate change issues but also all the connected items e.g. land use, biodiversity, nitrogen and phosphorous flows etc. The core of the presentation will deal with the challenges that emerge in terms of the societal aspects of e.g. multilevel governance (in the interplay between municipal-regional-national-EU level), but also facing the historical context within which the particularly chosen case is developing. This then includes e.g. the political processes, the cultural changes and the developments of aims and goal structures over one to two generations.

"We do not work with sustainable development" – experiences from the Swedish regional development arena

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Abstract

An overarching goal to implement sustainable development in all policy areas can be discerned in Swedish policy. When it comes to regions, their development are said to be enforced by including as well social as environmental aspects in their growth oriented programming, i.e. when implementing national policies on regional development. This is further supported by EU Structural funds programmes, with outspoken claim on integration of sustainable development in the projects – or at least a claim to present how it is done.

In practice the two opposites can be characterised by those who at a rhetorical level recognize sustainable development as important, in programmes, plans and regional policies, but in the implementation phase do not bother as much, and on the other side those that do a lot practical efforts of high relevance but hardly speaks about it, as they perceive it as something else, separated from sustainable development. Sometimes they coexist in the same organisation, but we can see dominant trends in different organisations, not only at individual level. A basic question is how integration can be defined in these situations.

The paper discusses how this integration can be understood by research, and in practice. When doing a discourse analysis of documents respectively doing observation of practical everyday work – what do we catch? And what is the role of researchers to enforce the practice of integration as part of the research activity? Should social science research interact in the processes per se, or being a commenter for the policy maker?

Keywords: sustainable regional development, policy implementation, integration of sustainable development, everyday practice, role of researchers

Implementing the EU Water Framework Directive in Norway. Effective multi-level coordination by meta-governance?

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Abstract

The EU Water Framework Directive was transposed into the Norwegian Regulation on a Framework for Water Management in 2007. The main purpose of WFD is to make the political-administrative water systems in the river basin districts capable of reaching their environmental goals of good water status, as well as distributing the relative advantages and costs as cohesive as possible, so that all affected parties are addressed. This requires comprehensive multilevel coordination, as the new organizational structures cut across existing political-administrative levels and borders, and encompasses a broad range of governmental and private actors. This paper explores how this multilevel coordination is performed by meta-governance. We focus on the coordination activities performed by the River Basin District coordinators. In this paper we ask three questions:

Does the implementation of the Water Framework Directive in Norway represent increased level of coordination of different sectors and levels of authorities? If so, what type of coordination?

What kind of meta governance strategies are used in the new organization structures of water management? Inspired by the literature on meta governance and network management, we identify different strategies, and explore to what extent these are applied by the RBD-coordinators.

How do different meta governance strategies promote coordination? Applying a “ladder of coordination”, we examine the relationship between meta governance strategies and outcomes in form of coordination.

How does the institutional complexity of the network influence the coordination effect of the meta governance strategies?

Our data is based on a survey to the coordinators and members of all 11 River Basin District Board and 33 selected Sub District Boards. We aim to contribute to a deficient literature studying the relationship between meta governance strategies and outcomes, by using large N data and examining the effects on coordination and how these are constrained by institutional complexity.

Keywords: Meta governance. Governance Networks, Coordination. Water Framework Directive. Institutional Complexity.

Compound governance and national paths to Europeanization: Implementing the EUs water framework directive in Norway

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Abstract

This paper addresses the implementation of the EU water framework directive (WFD) in the Norwegian public administration. The WFD may be seen as a reform effort that intervenes in the member states' domestic administrative system by inserting an ecosystem based organization, assigning a potential central role for the regional, river basin level. The directive involves the joining up of governmental structures by obliging coordination across sectoral lines of authority and levels of government. Thus, pressure is put on the sectoral authorities to make them collaborate and coordinate better. This article examines how the state executives respond to the reform features of the WFD. We ask the following questions: How do the state executives adapt? How can we understand their behaviour and action choices? And third: How can an organizational approach help us make assumptions regarding changes to the European administrative system? The paper reveals how two sets of state executives apply different approaches when adapting to the provisions of the WFD. We argue that the manner in which the WFD is implemented in the domestic administrative system confronts the role of existing policy making processes in terms of agenda setting, coordination and decision making in a way that may cause path altering dynamics in water management. In this light, the approaches of the state executives may be interpreted as efforts to defend their prerogatives as the formulators and implementers of public policy.

The role of water and agricultural policy over competitiveness and social disparities in the Mediterranean's production

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Abstract

Due to the increasing water conflicts among sectors induced by climate change, the crop response to water pressure is one of the main concerns of adaptation policy. However, it is evident that there are trade-offs between environmental policies and those that promote competitiveness, both at global and European level. This study is relevant for the revision of River Basin Management Plans in order to face the specifications of the EU Water Framework Directive (WFD) and national policies taking into account reforms to the CAP, within the context of climate change.

This paper evaluates the effect of changes in irrigation rights, as a policy instrument, over the efficiency and distribution of crop yields in the Ebro basin in Spain. Our analysis includes two components. First, we calculate a stochastic frontier production function for five representative crops using historical data to estimate technical efficiency. Second, we use a decomposition of the Gini coefficient to estimate the impact that changes in irrigation areas, have on yield inequality. Our main results show that reducing the allowed irrigated area, which could be a potential policy response to face the environmental requirements of the EU Water Framework Directive, could be a non dramatic solution for production in the short run, but could have long term implications affecting farmer's competitiveness and increasing rural disparities.

Keywords: Technical efficiency, yield inequality distribution, climate change adaptation, water policy, agricultural policy.

Coherent policy instruments for climate change adaptation?

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Abstract

Strategic documents such as the 2013 EU Adaptation Strategy, the 2010 Cancun Adaptation Framework and the 2009 EU White Paper on Adaptation identify climate adaptation as a necessary complement to mitigation. Cost effective and efficient climate adaptation is of key relevance, together with the enhancement of market opportunities and innovation (Europe 2020 goals; the 2050 Road Map). Climate change adaptation cuts across multiple sectors and therefore requires an integrated policy strategy. Often, procedures for addressing cross-sectoral issues lack coherence (OECD Policy Brief October 2002). Moreover, development of policy strategies to tackle a new problem may also interact and even conflict with existing policies in related policy areas, enhancing the problem of coherence.

This paper therefore aims to assess the policy mixes being implemented to address climate change adaptation in select European member states. We map and characterize the intervention logic embedded in policy instruments for climate change adaptation implemented in relevant policy areas (see e.g. Vedung 2009) and in order to assess the policy mix we apply the framework developed by Howlett and Rayner (2007) examining the coherence of policy objectives and the consistency of policy instruments in the mix as well as with instruments already in place in related policy fields. In addition to policy sectors, the analysis will focus on the distinction between instruments aiming to encourage private action versus instruments aiming at public action in order to examine how the borderline between public and private responsibilities is conceptualized. Finally, we will explore how the nature of the possible adaptive measures affect conclusions concerning the consistency of instruments. The analysis uses data from national strategies and action plans.

How farmers are questioning rationales behind agri-environmental schemes

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Abstract

Agri-environmental schemes (AES) rely on five rationales: They 1) recognise private property rights 2) benefit the environment 3) modify behaviour 4) are voluntary and 5) offer financial incentives. The question is to what extent farmers acknowledge these rationales to be present in the schemes they are offered. A mismatch between the underlying rationales of the AES as a policy tool and farmers' perception of these same rationales could significantly limit the potential success of the policy tool. Previous research has explored the success of the AES in terms of efficiency and effectiveness, for example participation rates. Reasons for (non-) participation have also been explored, whereas the underlying rationales of AES have been left unattended.

The aim of this study is to analyse farmers' perceptions of these rationales. We chose two similar cases of wetland restoration in Denmark. Twenty-three in-depth, semi-structured interviews were conducted with 34 farmers. Farmers' perceptions of private property rights were that if farmers are given societal responsibilities then they should have financial or other forms of compensation. The farmers questioned the suggested project's ability to reduce nitrogen leakage and wanted to make sure that they are acknowledged for eventual contribution to reduction. Most farmers thought they would have to modify behaviour both within and outside the wetlands. Furthermore, the farmers questioned the voluntariness of the schemes, as compulsory purchase might take place because authorities need to designate wetlands somewhere. Farmers emphasised the importance of financial compensation while simultaneously criticising the actually offered compensation for being too low.

Keywords: wetland restoration, preferences, evaluation, attitude

Environmental governance of the Baltic Sea: A pipedream of policy integration?

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Abstract

Governance of the Baltic Sea environment represents a dilemma: while multilevel arrangements to combat marine environmental problems have been in place for over 30 years, the sea is still considered one of the most polluted seas in the world. Overall, there is a stark contrast between the formally successful multilevel governance system and the actual state of the sea. The governance is increasingly driven towards policy unification and integration throughout the region especially since the enlargement of the European Union in 2004. This is problematic, because the ecological characteristics of various environmental problems vary a lot across the region, as do societal dynamics causing these problems and capacities to combat these problems.

Leaning on my ongoing research project, this paper describes the existing Baltic Sea environmental governance system and explicates governance challenges in the case. In the light of the results, the ideals of policy unification and integration become contested. Also a general lesson for the governance of international water bodies is suggested. Institutional diversity with many different scale preoccupations and tailor-made policy instruments seems to be the key to achieve environmental effectiveness. In actual fact, there is no easy way to manage problems that are both disjointed and multifaceted itself, and involve a multitude of actors at different governance levels.

Keywords: European Union, marine protection, multilevel governance, regime

Types of Multi-Scalar Actions in Integrated Water Policy - A Case of the EU Water Framework Directive Implementation

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Abstract

The Water Framework Directive of the European Union (WFD) has become a showcase for new modes of environmental governance, following core principles of Integrated Water Resource Management (IWRM). One of the most pertinent issues attracting increasing interest in policy and research circles is how the WFD has set in motion a process of reconfiguring the scalar organisation of water management. On the one hand, the WFD requires water management planning to be conducted around the scale of the river basin, in addition to the scalar level of political-administrative jurisdictions (Art. 3). On the other, it is reordering the vertical decision-making process of water management in Europe, primarily by strengthening the role of the European Commission, now equipped with powers to monitor the achievement of wide-ranging environmental objectives for water quality according to a set timeframe and to sanction non-implementation. This process of scalar reconfiguration is particularly dynamic by virtue of the new opportunities for the participation of interested stakeholders in the water management planning process created by the WFD. This paper addresses some of these open issues with a study focussed on the scalar actions currently being developed and applied by water authorities, water management organisations, local authorities and interest groups involved in implementing the WFD from the EU to the local level and back.

Keywords: Rescaling, Politics of Scale, Water Resources, European Environmental Policy

Comparative Water Governance: The implementation of EU the Water Framework Directive in Norway, Sweden, Finland, Austria and Scotland

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Abstract

The EU Water Framework Directive (WFD) aims at ensuring that all of Europe's water bodies achieve good environmental status. All significant pressures to the water environment are targeted; including not just point source pollution and nutrients, but "hydromorphological" alterations to the natural flow of water as well, such as dams. WFD is a case in point of "environmental policy integration". Environmental aims are not to be relegated to a particular "environmental sector" but needs to be integrated into decision-making processes in various sectors. At the same time, overall coordination needs to be ensured. This is in line with Lafferty and Ruud's (2006) distinction between horizontal and vertical environmental policy integration, which is part of the theoretical apparatus for this presentation.

The present proposal is based on empirical evidence from the WAPABAT project – a social science project on Norway's implementation of the WFD funded by the Research Council of Norway and co-ordinated by the author. The project design includes a comparative analysis of WFD implementation in Norway, Sweden, Finland, Austria and Scotland, and the paper will present preliminary findings from this undergoing study. How do these countries differ in terms of WFD implementation? How can various aspects of each country's system for water governance be assessed in terms of achieving environmental policy integration?

References

Lafferty, W. og Ruud, A. (2006): Standards for Green Innovation. Applying a Proposed Framework to Governmental Initiatives in Norway. *Evaluation* Vol 12(4): 454 – 473

Keywords: Water framework directive – environmental policy integration

Governance of water resources in a phase of change – a case study from the Baltic Sea Region

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Abstract

Water resources are often common – pool resources at risk in modern societies, where the spatial dimensions of water management create needs for coordinating institutions. The European Community Water Framework Directive (2000) adopts an innovative, holistic and target oriented approach to the management of water resources covering all inland waters and coastal waters. In this case study, we analyse the governance of water resources and related ecosystem services on local to regional scales through phases of institutional change applying an ecosystem management perspective.

In the WFD, water management is seen as an integrated, iterative process with co-governance between different stakeholders and the responsible water management authority within the different river basin districts. The policy style of the WFD can be characterized as a combination of the “old” command –and- control and a “new” more interactive negotiative approach. The WFD encourages active involvement of all interested parties in the implementation of the directive. Even so, there are still many uncertainties regarding appropriate forms and roles for participation, as well as use and transfer of knowledge between the local and regional levels.

While the WFD aims at water governance with a better spatial fit between administrative and ecological boundaries, the cross-scale interactions and linkages are still unclear. Regional water authorities have limited instruments and resources to implement water management

strategies and are therefore dependent on the commitment of municipalities and local stakeholders. Hence, water management strategies developed within a river basin have to be harmonized with municipal land use planning including biodiversity conservation.

Keywords: ecosystem management, stakeholder participation, cross-scale interactions

Legal and Institutional Framework for Implementation of EU Provisions on Stakeholders Participation in Water Governance in Poland

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Abstract

The main objective of this paper is to present the legislative and institutional structure established in Poland in the course of implementation of the provisions of the Water Framework Directive pertaining to the engagement of stakeholders in local water governance. The paper will start with a brief look at the EU provisions on stakeholders' participation in water governance. Secondly, a number of points about the specificity of the local Polish context will be presented. Thirdly, the paper will analyze the main legislative and regulatory provisions adopted by Poland in the course of implementation of the EU water management requirements. Fourthly, a short description of the established institutional structure will be provided. Fifthly and finally, specific provisions establishing the rules of stakeholders' involvement and experiences of the first implementation cycle will be examined in order to draw some preliminary conclusions about the Polish case.

Keywords: Water Framework Directive, Governance, Stakeholders

WG 12 Partnership for rural sustainable development in the era of Anthropocene

When Negotiation Means Information Delivery but not Consultation Commercial Fishers and Marine Parks in Queensland¹

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Abstract

A study of commercial fishers in three regions of Queensland, Australia has shown a disconnect between fishers' ecological and industry knowledge and that of scientists and management. We found a level of industrial and psycho-social impacts in relation to the implementation of marine protected areas. While not all fishers were deleteriously affected, in fact some fishers were better off financially due to compensation paid for loss of fishing grounds, a number of fishers and their families experienced a range of impacts including physical and mental health problems, alcoholism, marriage breakdown and marriage pressure, and attempted and actual suicide. The study also documented the socio-economic effects of the scientifically-determined marine park boundaries which limited fishing access to areas which their fathers and grandfathers had also fished. Among the fishers main concerns were the disempowerment and disillusionment they felt about the consultation process. Fishers reported feeling disrespected, not listened to, and cynical about the scientific process used to set the marine park limits. They stated that their "at sea" experience and long-term marine knowledge were disregarded. As a result, they became disillusioned about a consultation process that ignored the social effects of fisheries change and focused largely on information delivery about the marine park and any accompanying structural adjustment scheme offering compensation. The research showed a broad gap in knowledge understandings between fishers, scientists and management. State authorities in Queensland did not undertake social impact assessments and thus did not incorporate (at least in terms of policy decisions and marine park implementation) the psychological and socio-economic outcomes of their decisions. Is there a way out of this conundrum?

Building partnerships through social learning: findings from an action research project in rural South Africa on vulnerability and adaptation to multiple stressors

Cundill, G., Shackleton, S., Nkonki, A

Abstract

Global challenges such as climate change interact with regional challenges such as HIV/Aids and poverty in unpredictable ways at village and household level. This is particularly true of developing countries. Supporting society, at various scales, to respond and adapt to these multiple stressors in ways that support sustainable trajectories for people and ecosystems is a key future challenge. Such adaptations are, at their heart, about people learning together. Developing methodologies that might support community strategies aimed at adapting to climate change and other stressors is therefore imperative. The concept of social learning, in particular, holds promise in this area as it has gained increasing attention over the past decade as a supporting mechanism for building partnerships and facilitating collective action around common concerns, and thus social change.

This paper reflects on experiences from South Africa in which an action research project focused on household and community responses to multiple stressors was explicitly designed to lead to social learning. We present a community engagement process that was developed and tested over three years to foster social learning for adaptation. We also present a methodology that was developed to iteratively monitor the learning that occurred during the project, and we present and reflect on the social learning outcomes documented during the project. The focus on methodology, process and learning, as opposed to technological responses to stressors, is important because in many cases new and revitalised local practices are only sustained if they are desirable and feasible to the people involved, and congruent with their history, experiences, values and knowledge.

Decentralization of Conservation Management in Norway and Sweden

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Abstract

Decentralization of natural resource management is an international trend that has lasted for several decades ([Zachrisson, 2009](#); [Ribot, 2002a](#)). Several trends have prepared the ground for this focus on decentralization: Increased focus on local participation, growing focus on the combination of use and protection, as well as on partnership and governance ([Zachrisson, 2009](#)). These international trends also influence management of national parks in Norway and Sweden. In this paper we will analyze the two management system in light of Agrawal and Ribot's (1999) decentralization model. Despite the seemingly similar political systems, the countries differ both in the choice of institutional solution and in the scope of change. While Sweden has introduced co-management in a few protected areas, Norway has chosen a reform that has devolved powers in all conservation areas to inter-municipal management boards.

We argue that there is a need to go beyond the study of nature resource management and nature conservation management to explain these differences. Our point of departure is that international policy trends are always transformed and translated to fit the political and administrative systems where they are introduced. We therefore search for explanations within two broad fields of literature. While the choice of different institutional designs might be explained by the different traditions of public administration in the two countries, the differences in the scope of change might be explained by the extent to which nature protection reflects dominant political cleavages in the country, as well as the difference in politicization of nature protection in public debate.

Keywords: decentralization, conservation management, politicization

Partnership process and social learning: the case of the Swedish fisheries local action groups (flags)

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Abstract

The Common Fisheries Policy (CFP), which underpins the governance of marine fisheries in the European Union, is widely acknowledged to have been unsuccessful in making fisheries more sustainable. Overall it has failed to deliver on most of its social, economic and ecological goals, providing trust and building a constituency of support for the overall policy-making process.

The establishment of FLAGs (Fisheries Local Action Groups) is an attempt to remedy this situation through adopting partnership as management model for several European fishery areas. The involvement of public sector, business sector and civic society into a collaborative arrangement create the conditions to learn about each others perspectives, views and knowledge and thereby providing the basis for a sustainable management of fishery policy.

Based on results of semi-structured interviews with the members of the Swedish fisheries local action groups and participant observations conducted at the meetings, this paper aims to investigate and analyse the creation of social learning as an outcome generated by partnership arrangements. Questions that this paper addresses are to what extent partnership arrangements generate social learning? What are the short term and long term effects of social learning?

Keywords: Common Fisheries Policy; Fisheries Local Action Groups; Partnership; Social learning

The changing local dynamics of farming - a case study from an agricultural community in Finland

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Abstract

In agriculture the relationship between nature and production is direct. The agricultural production processes utilize the same natural environment that the production is dependent on. The various processes in agriculture manifest themselves in a specific spatial and temporal environment and in a multifold interaction between various actors, actants, sectors and value chains. Hence the human activity, natural and political processes realize in different time scales. Understanding the dynamics of the various networks and science-policy interfaces and how this influences the decisions made in the farm level is important when trying to achieve the targets set for rural and agricultural policies.

Agriculture in Finland has traditionally been based on family farms. As a result there is a strong undertone that agriculture itself has a built-in sustainable mechanism in it as one if its main aim is to maintain suitable conditions for farming and the environment for future generations. The challenge is how to accommodate this local dynamics into environmental and agricultural policy planning.

Farmers who are not necessarily farming purely on productivist premises have been recognized to be hold potential in contributing to the various elements of what has been learnt to be called multifunctional agriculture. When the share of agriculture as the farmers' source of livelihood diminishes, converting for example some of the fields into alternative uses might become more attractive. Recognizing the various premises farmers have into farming and the adaptive processes that are taking place in the farm level open up the potential for livelihood diversification and agriculture-integrated environmental protection in rural areas.

(How) Can adaptive moose management contribute to sustainable rural development?

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The concept of adaptive management (AM) is widely advocated as an alternative to traditional top-down management of natural resources around the world. In Sweden, however, AM has only recently been introduced to manage moose. Based on the analytical framework, developed by Pieter Glasbergen (2011), we study the AM of moose as a case of a partnership arrangement within the field of wildlife governance. We put particular attention on how adaptive moose management enables sustainable rural development, since hunting is considered to be an important source of recreation and livelihood in Swedish rural areas. We identify a number of challenges associated to the involved stakeholders' abilities, willingness and understanding to implement the induced management system. We also emphasize the interactions between the different stakeholders on both vertical and horizontal levels, as well as the tradeoffs the new ecosystem based adaptive local management system generates for rural and urban areas.

Keywords: public private partnership, moose management areas, implementation, Sweden

Internationalization of Nature Conservation: Two Models of Protected Area Decentralization

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Abstract

International agreements demand that a representative selection of protected areas be established and that they shall be managed effectively. There are no legal obligations to ensure local management of such areas, but there are numerous political commitments to enhance local involvement. These commitments, in particular those on decentralization of protected area management, have been treated differently in two countries which otherwise share many similarities, Norway and Sweden. Norway is implementing a local management reform while Sweden is employing an ad-hoc partnership strategy. Overall, nature conservation is more internationalized in Sweden than in Norway, as Sweden has many more protected areas with international protection status. In this paper we explore differences in how local management regimes and international nature conservation regimes are interpreted and implemented in Norway and Sweden, and attempt to explain such differences drawing on the literature on the effectiveness of international environmental regimes. Pathways of institutional influence may be understood as being regulatory, normative and cognitive. For the purpose of this study, we focus on regulatory and normative pathways, which mirrors the distinction between legal (“hard law”) and non-legal (“soft law”) norms in international environmental law. The regulatory influence is hypothesized to be higher in Sweden, as Sweden has implemented strict nature conservation policies based on EU’s Natura 2000. Normative influence is instead believed to be higher in Norway as it is often linked to decision-makers’ perceptions of their state’s identity and role in world politics. Norway has a strong policy tradition on and reputation of emphasizing the local level.

Circular Economy and Agriculture: exploring pathways for making the transition

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Abstract

Resource scarcity is increasingly the major challenge to the future of societal and economic development and entering the Anthropocene gives rise to a reconsideration of the way the current economic system is functioning. Fostering transitions will be a key concern in order to re-structure various sectors of the economy, including agriculture, towards a sustainable future and this process will require new types of organizations and collaborations among stakeholders.

Circular economy is establishing itself as an approach that claim to overcome the current impasse of the economic system. The aim of this paper is to explore in what ways the circular economy might reshape agricultural and rural development. This is carried out by relating the notion of circular economy to two diverging agricultural and rural development pathways which Kitchen and Marsden (2009) term the bio-economy and the rural eco-economy. The paper discusses how the notion of circular economy relates to these pathways and how agriculture is conceptualized to function within them. Each of these pathways entails different consequences in relation to new forms of partnership arrangements, which is discussed in the final part of the paper.

Keywords: bio-economy

Harnessing conservation volunteers in effective control of Invasive Non-Native Species control in Britain

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Abstract

Invasive Non-Native Species (INNS) are a major cause of global environmental change. Although eradication has been achieved in certain cases (small islands, aerial baiting), professionally-led control of INNS is unlikely to be feasible on a large scale without substantial on-going funding. The 2008 INNS Framework Strategy for Great Britain called for a more coordinated and prioritised approach to management. This strategy stimulated the creation of partnerships between governments, NGOs and the private sector to implement a more rationalised vision of INNS control. These partnerships increasingly seek to mobilise volunteers (e.g. land managers, residents) and to orchestrate the activity of existing community-based projects. How project managers implement effective INNS control and influence opportunities for public engagement will be the focus of this paper.

Based on eleven exploratory interviews with landscape-scale programme managers, our investigation explores the strategies mobilised to align cost-effectiveness objectives and volunteer participation. Four versions of volunteers were brought to life in this process of adjustment but managers' accounts of volunteer resistance to task assignment and professionalizing strategies suggest that current management practices may be counter-productive. More research is needed to understand how volunteers frame their participation in INNS control and how better connections could be made between volunteering motivations and management of Invasive Non-Native Species.

Keywords: volunteerism, enrolment, biological invasion, co-management, community-based conservation.

Partnerships for protected area governance in Sweden: Balancing nature conservation and sustainable rural land use

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Abstract

The need to consider protected areas as integrated with human societies is widely acknowledged today. This interdependence is concluded central not the least to sustainable rural development. Partnerships between the state and local actors have consequently become an important type of governance to ensure a balance between conservation and sustainable use. While comparing types of governance and assessing their potential impact on activities within newly inaugurated National Parks, we focus in particular on why partnerships have been established in two of our three cases in Sweden. Our study clearly shows that governance type and permitted activities are not necessarily related to an overarching national policy but rather can be explained by land use history and the current strength of corporative interests in or adjacent to the National Parks.

Keywords: Governance Type; National Parks; Policy Oriented Partnerships; Sustainable Use; Rural Governance

Regional plans as policy tools – road maps or blueprints?

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Abstract

Norway is the last country in Europe with remnants of the European wild reindeer populations and therefore has an international responsibility for this species. In 2007 the Norwegian Ministry of Environment endorsed on an ambitious planning project. Through regional plans, the Ministry aims to secure sufficient wild reindeer habitat while catering for the needs for development in marginal mountain regions.

The emphasis on regional planning represents a shift in reindeer management from traditional population management towards spatial planning. This has opened the process for a wide range of new actors, interest groups and governmental agencies, and consequently a wider diversity of knowledge- and management cultures.

Planning evaluation theory distinguishes between two general understandings of the success of plans ([Faludi 1987](#); [Faludi & Korthals Altes 1994](#); [Faludi 2000](#)). Either the success is measured as conformance to plans or as performance to fulfill the general aims of the plan. We use the concepts conformance and performance to discuss a regional plan in Southern Norway. Through a case study from the rural municipality Bygland in Aust-Agder County, we investigate how different local actors and governmental agencies interpret the regional wild reindeer plan. Shortly after this process, plans for a wind farm in Bygland challenged the political agreement in the regional plan. In this paper we show that the different actors do not merely disagree on what the objective of the planning process is (and should be). The disagreement is also related to the nature of regional plans as policy tools.

Several authors have emphasized the importance of a common understanding of status quo, challenges and future threats to succeed in such processes. While we concur that agreement on the knowledge base is crucial, the case study from Bygland shows that conflicting views on the status of the wild reindeer plans reinforces underlying conflicts. This again challenges the legitimacy of the plan.

Keywords: regional planning, wild reindeer management, conformance and performance.

Protecting forest through shared responsibility?

(former title: Conservation agreements in Sweden: success or failure?)

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Abstract

There is an increasing interest in complementing traditional command-and-control instruments for protecting forest land with new collaborative policy instruments (NEPIs) (Jordan et al. 2003; Glasbergen 2010). In Sweden, NEPIs was implemented when the government formulated a new forest policy based on a more cooperative strategy (Governmental. Bill 1992/93:226). In the forest policy from 1993 conservation agreements, i.e., contracts between the Swedish Forest Agency/County administrative board and forest owners were established based on the idea that conservation agreements could play a role in increasing the interest among forest owners for forest protection, in order to fulfill international and national environmental commitments. However, conservation agreements have shown to be a rather inefficient policy instrument to fulfill governmental objectives although with a great variety between different counties in Sweden (Gov.Bill 2008/09:214).

In this study we have, through interviews explored reasons why forest owners in Sweden seems reluctant to the implementation of NEPIs, but also focused on the two counties with the lowest and highest degree of implementation of conservation agreements. Factors such as i) level of economic compensation, ii) different motives for forest management, iii) member in a forestry association, iv) the influence of forest professionals, v) ownership of large properties but also trust in authorities explain why owners in some counties are more keen to sign agreements while owners in other counties choose not to implement conservation agreements. The lessons learnt may contribute to the enhancement of the relationship between authorities and private land owners.