



Governance structures for social-ecological systems: Assessing institutional options against a social residual claimant



Janet Dwyer^a, Ian Hodge^{b,*}

^a Countryside and Community Research Institute, University of Gloucestershire, Oxstalls Campus Oxstalls Lane, Gloucester, Gloucestershire GL2 9HW, United Kingdom

^b Department of Land Economy, University of Cambridge, 19 Silver Street, Cambridge CB3 9EP, United Kingdom

ARTICLE INFO

Article history:

Received 5 November 2015

Received in revised form 23 June 2016

Accepted 31 July 2016

Available online xxx

Keywords:

Environmental governance

Social residual claimant

Social-ecological systems

National Parks

Landscape Partnerships

Nature Improvement Areas

ABSTRACT

Rural areas face increasing pressures to deliver both private and public goods from land management. Multiple stakeholders seek different outcomes and there is substantial heterogeneity in values. Trade-offs, synergies and complementarities exist between different services and alternative bundles of goods. The resulting complex social-ecological systems (SES) therefore require adaptive co-management. In a governance context, no single organisation has oversight across the variety of interests involved, but the challenge remains as to how these interests can best be balanced and negotiated, to deliver socially beneficial outcomes. This paper analyses how this might be achieved by considering the perspective of a 'social residual claimant' (SRC). The SRC, as an ideal type, represents the ultimate 'owner' or steward of an ecosystem which sets the criteria to assess alternative outcomes, identifying best approaches and addressing uncertainty through adaptive management. A SRC cannot be a static construct, but must interact with and influence private land-holders and other stakeholders, adjusting actions as circumstances change. We identify the criteria that would be required in order for an SRC to act in the best interests of society. We then make a comparison of these criteria against the conditions applying in three contrasting approaches currently operating in the UK: National Parks, Landscape Partnerships and Nature Improvement Areas. This enables us to identify the differences between approaches and to suggest changes that could enhance capabilities, as well as ideas for further research. We suggest that the ideal of an SRC offers a simple method of benchmarking that has potential application across a wider range of different local contexts, beyond the UK.

© 2016 Elsevier Ltd. All rights reserved.

1. The challenge of social-ecological systems governance

Environmental resources are increasingly required to deliver complex mixes of both private and public goods and services. Particular pressures articulate around the current and future use and management of rural land. Options for the delivery of agricultural outputs have traditionally been resolved within individual farm business decision-making. But today, the wider social demands to meet biodiversity, climate, public access, energy, landscape and water management objectives, alongside the production of food and fibre, indicate the need for a broader, multi-actor and pluridisciplinary, deliberative approach. This range of desired outputs is increasingly characterised in terms

of the delivery of ecosystems services (Millennium Ecosystem Assessment, 2005; UK National Ecosystem Assessment, 2011; Schröter et al., 2014) and so the promotion of a socially desirable package of public and private goods through land use planning and management may be cast in terms of the appropriate governance of ecosystems.

Effective ecosystem governance in this context faces many major challenges.

- Multiple stakeholders, at multiple scales (local, regional, national and international) value ecosystem goods and services differently, not simply in terms of relative valuations of particular items, but also in terms of the broader value systems which underpin their preferences.
- The values of services generated within a particular locality depend on both the capacity of the local area to supply them, as

* Corresponding author.

E-mail address: indh3@cam.ac.uk (I. Hodge).

well as on the character and scale of local and non-local demands for them. There is thus substantial spatial heterogeneity.

- There are trade-offs but also synergies and complementarities amongst ecosystem services; not just between individual private and public goods, but also amongst alternative bundles of public and private goods.
- The land and/or the capacity to control and influence the delivery of ecosystem services is usually in multiple and complex ownerships.
- Public policy towards individual ecosystem services tends to be implemented through separate agencies, with limited co-ordination between them.
- The operation of certain key elements within ecosystems (e.g. climate regulation; biological adaptation) is only partially understood and subject to uncertainty and ignorance.

This mix of challenges, which combines both ‘natural’ and ‘human’ elements¹ together in a social-ecological system (SES) (Folke et al., 2005) requires land management at a scale larger than that of a typical, individual farm business. But it is difficult to generalise about exactly how large this scale should be. Important interactions between elements within the system occur at all scales, ranging from those at micro-scale (e.g. between plant roots, fungal mycorrhizae and the soil), to those with much broader impacts (e.g. greenhouse gas emissions acting on global climate). However, discontinuities in the strength and nature of interactions can be identified and used to define certain scales at which there is a greater degree of system-internalisation of impacts or outputs; thus, delimiting the SES in respect of these features. For example for hydrology, it might be represented by a catchment, whereas for landscape or ecology it could be some sort of ‘natural area’ or relatively homogeneous landscape unit. This is not to imply that ecosystems are always congruent with such ‘landscape-scale’ places: rather, that in practice the formation of governance structures demands specific (usually spatial) delineations within which institutional rules may be defined and implemented for SES planning and management.

Beyond the question of scale, there is the need to establish an effective governance structure and *modus operandi*. We rarely have appropriate, established institutional structures through which values and options may be explored and shared, consensus determined and processes established for the delivery of socially desired ecosystem management. Most existing governance structures lack capacity to identify and adequately represent the complex range of attributes and services that flow from rural land management in the long term. This problem has been recognised previously: Lindberg and Fahlbeck (2011, p. 35) comment that there is “scope for new forms of institutional arrangements, or governance, to make better use of synergies and complementary inter-relations between actors and activities.” Erickson (2015) comments on the need for new institutions to improve the resilience of SESs. Lubell (2015, p. 44) argues that determining “which institutional structures work best in different situations is one of the most important unresolved questions in the policy sciences.” Chaffin et al. (2014) have argued for more research on the relationship between the principles of adaptive governance and those of ‘good’ governance. Market based instruments have potential roles, but they are incomplete and their outcomes uncertain (Lockie, 2013). We also recognise that the required institutional arrangements will not simply reveal an existing set of shared values and preferences but rather they must be deliberative, acting to create these values. Vatn (2005, p. 203) argues that

“the core policy issue is to determine which institutional frameworks are most reasonable to apply to which kinds of problem.” Choices reflect the norms, rules and expectations as reflected in the institutions of a society. From this perspective, the sharing and development of a common view means that institutional arrangements for governance will shape both the values underpinning SES planning and management, and the specific management or resource-allocation decisions that arise from them.

In this paper we explore approaches to the governance of SESs. Our method centres around the perspective of an ‘ideal type’: the social residual claimant (SRC). In recognising that there is no single organisation or forum that takes an overview of the workings, desired outcomes and wider implications of ecosystems, the SRC represents how the ‘owner’ of an SES would act to maximise the long term societal value arising from the provision of ecosystem services. This enables the identification of criteria that need to be met in order to achieve this ideal. We then compare these criteria against three case studies of collective environmental governance in the UK. This shows how these approaches to ecosystem governance differ from the SRC ideal and hence suggests directions for further research and development.

2. The relevance of the social residual claimant

Under most conditions of governance, multiple actors and stakeholders influence outcomes in a variety of ways through markets, institutional hierarchies and networks (e.g. Rhodes, 1999), and no single agent has a clear overall control. Chhotray and Stoker (2009 p. 3) see governance operating in a context where “there are a plurality of actors or organisations and where no formal control system can dictate the terms of the relationships between these actors and organisations.” This raises the question as to how in principle we can envisage ‘optimal’ governance of an SES, as a standard against which to assess actual governance processes. It is certainly possible to conceive of a hypothetical single, benign ‘owner’. Such an ‘owner’ of an SES would act as an SRC (Hodge and Adams, 2014). As identified in economic theory, the residual claimant of an enterprise acts to maximise the residual that is left after all costs have been paid and revenues received, and hence maximise the net benefit gained, as judged by the claimant. Varian (1993 p. 617) argues: “In order to design an efficient incentive scheme it is necessary to ensure that the person who makes the effort decision is the residual claimant to the output.” The residual claimant also bears the residual risks after all exchanges have taken place. In a private company, the residual claimant receives the net cash flows: the difference between the revenues received and the payments made (Fama and Jensen, 1983b). However, the management of an SES bears more resemblance to a non-profit organisation, where there are no agents with alienable rights to residual net cash flows (Fama and Jensen, 1983a p. 318) and thus risks are borne by consumers or beneficiaries of that organisation’s activities, as well as by the factors used to produce the outputs (Fama and Jensen, 1983b). Residual claims are vested in a board of trustees acting on behalf of the beneficiaries and net cash flows are all committed to current and future output (Fama and Jensen, 1983b p. 348). Speckbacher (2008 p. 305) comments that “residual rights of control include the right to interpret its mission and turn it into something more concrete by formulating organisational objectives, the right to specify how this mission is best realized and the right to make all management decisions.” We thus see the SRC taking a role equivalent to the board of trustees of a non-profit organisation and acting for the collective interest of all stakeholders. Because the impacts of planning and managing rural land in an SES include both market and non-market values, the residual claimant

¹ We use this dichotomy for the sake of simplicity in language, whilst acknowledging the scientific impossibility of defining boundaries between its poles.

Download English Version:

<https://daneshyari.com/en/article/1053400>

Download Persian Version:

<https://daneshyari.com/article/1053400>

[Daneshyari.com](https://daneshyari.com)