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Analysis

Developing an analytical framework for reconstructing the scalar reorganization of water governance as institutional change: The case of Southern Spain

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ABSTRACT

Relying on theories of institutional change, a framework is developed to explain formal change in natural resource governance, in this case, formal scalar reorganization (re-scaling) of governance. Modifications of water governance are the outcome of interrelated changes in the determinants of actor-specific perceptions of costs and benefits of governance. To become effective, actors need to be able to bring their preferences to bear on constitutionally defined action situations where collective bargaining processes over governance take shape. Rescaling is conceptualized as being about whose economic interests are able to control the processes by which rescaling is advocated and carried out and whose technically, economically, or politically oriented vision of water management prevails. The framework developed goes beyond the alternatives of either functionalist problem-solving approaches or approaches focussing on political bargaining. Its application is illustrated through an in-depth qualitative case study of decentralization of governance in Spain's Guadalquivir river basin. Here, rescaling resulted from some politically dominant regional actors favoring better coordination of water management with regional environmental management and greater control of water and coincided with a political two-level majority at the national and regional levels. The case highlights the role of relations between institutional arrangements and biophysical settings, such as the specific geographical setting and changes in the relative importance of characteristics of the nature-related transactions, implicit, for example, in the changing relative importance groundwater management at the expense of surface water management.

1. Introduction

Much research on water management in Europe addresses the way the European Union's Water Framework Directive (WFD) influences water management at the national, regional and local levels. Among other things, the directive suggests the river basin as the right scale at which to organize water governance (CEC (Commission of the European Community), 2000). Given its binding character, its advocacy of River Basin management, its requirement to undertake River Basin Planning, and its substantive requirements, the directive could be considered the principal driver of recent changes in scalar organization of governance.[1] However, as a variety of recent studies have found, the picture is much more complex (Kerr, 2007; Lankford, 2010; Meyer and Thiel, 2012; Mollinga et al., 2007; Moss, 2004; Thiel and Egerton, 2011). Based on five US case studies, Schlager and Blomquist (2008) conclude with a description of the dynamics shaping the organization of water governance. They view politics in terms of who is inside and outside of specific decision-making processes and who gets what, all flowing from constitutional rules as key to the structuring of water management. Further, they write that "in each case institutional arrangements have been created and modified by people over time in response to changed awareness and understanding of problems, changes in the set of tools available for addressing them, and changing public attitudes and preferences" (Schlager and Blomquist, 2008, p. 187).

Against the background of the complexity of the issues at hand, this paper aims to help re-structure our understanding of these processes by developing a conceptual framework that can aid in launching comparative research about the drivers of formal reorganization of natural resource governance in general and water governance in particular. Use of the framework is subsequently illustrated by analyzing the case of water governance reform in Southern Spain. While in much of Europe River Basin Management has been

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[1] In this text, I use scalar reorganization and rescaling synonymously, in order to stress that the process has an organizational–functional as well as a politics-related aspect which is usually being referred to with the concept of "re-scaling".

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strengthened throughout the last decade, in Spain the opposite has happened (Lopez-Gunn, 2009; Thiel and Egerton, 2011), with the case of the Guadalquivir River being illustrative of this national dynamic. Commentators agree, however, that the dynamics of breaking up traditional, basin-oriented water management went furthest in the Andalusian case,[2] going stridently against European advocacy of River Basin Management and suggesting that other dynamics need to be considered in explaining scalar reorganization of natural resource governance. Thus, developments in the Guadalquivir provide a good case for illustrating the complex dynamics I consider relevant.

To my understanding, the scale from which natural resources are governed defines a) the spatial extent of the area to which a specific institutional and actor configuration applies, b) the administrative level with which resource management is associated and c) its horizontal and vertical interrelations to other governance structures (cf. Howitt, 2003). Changes in scale and corresponding changes in these three dimensions are related to two dynamics that shape the scalar organization of governance: 1) the politics of scale and the outstanding role for state agency, as principally conceptualized by critical geographers (Brenner, 2004; Marston, 2000; Swyngedouw, 1997), and 2) a perspective that considers institutions as problem-solving devices where actors are considered to be engaged in continuous search processes with the aim of devising institutions that provide a proper "fit" (Moss, 2012), meaning that they "match the defining features of the problems they address," including both the "biophysical and social domains in which they operate" (Young and Underdal, 1997). This paper integrates both understandings of these dynamics and illustrates how society addresses the fact that political and functional tradeoffs necessarily shape institutional arrangements, and no 'natural' unit for water management exists (Molle, 2008; Mollinga et al., 2007; Mostert et al., 2008). In contrast, some existing studies of the transformation of water governance have focused either on the political sphere (Bressers and Kuks, 2004; Huitema and Bressers, 2006) or the role of social learning and culture in the emergence of new management regimes (Pahl-Wostl et al., 2008). Meanwhile, other studies have emphasized nationally contingent dynamics and path dependencies in political and institutional domains (Börzel and Risse, 2003). Falkner et al. (2007), for example, categorize national policy styles in relation to the implementation of European legislation and reason about their causal efficacy in shaping implementation. In contrast, emphasizing the functionalist, problem-solving dimension of the scalar organization of water governance, Huffmann (2009, p. 122) writes that a "better explanation for the changing emphasis on river basins as an organizing concept for water governance are changing demands on the water resource and new technologies".

I argue that explanations of scalar reorganization of natural resource governance need to acknowledge changes in perceived costs and benefits of governance of nature-related transactions as well as to consider the politics involved. Swyngedouw (1999) has built such a comprehensive account, which I try to put on firm theoretical ground by relying on a combination of theories of institutional change in order to detail specific drivers and reasons underlying scalar reorganization of governance. This combination of theories enables a detailed micro analysis of the mechanisms at stake while, at the same time, embedding such processes into broader institutional change, filling a gap in the literature on rescaling. The approach taken here does not consider scalar change of resource governance to only be about politics and political economy or (learning about) cost-effective governance. Rather, it is also about whose economic interests are able to control the processes by which rescaling is advocated and carried out and whose technically, economically, or politically oriented vision of water management prevails at a specific moment in time.

Below, I start by introducing my conceptual framework, research design and methods before applying the framework to the illustrative case of scalar reorganization of water governance in Southern Spain.

2. Conceptual Framework: The Scalar Reorganization of Natural Resource Governance as Institutional Change

In this section, I first present the conceptualisation used in this paper of the static ("eco-institutional") setting in which natural resource use develops (left box in Fig. 1) before introducing a dynamic perspective on the scalar reorganization of natural resource governance (middle and right boxes of Fig. 1).

Institutions are understood here as regularized de facto rules that describe how people interact in certain situations. They may include shared strategies, conventions, norms or sanctioned rules, depending on the sanctioning mechanism involved (Ostrom, 2005). Property rights and governance structures are defined by rules. The former distribute value streams from interdependent users and, therefore, require reliance on some kind of higher authority (Bromley, 1992), while the latter organize the monitoring and enforcement of property rights. Note that de jure property rights (and governance structures), such as those set out in legal codes, may largely differ, for example because of often-lamented implementation gaps (cf. Jordan and Lenschow, 2000). Governance structures are distinct from what political scientists address under the term governance, meaning for instance changes in actor networks engaged in governing (cf. Chhotray and Stoker, 2010). Here they also have the function of apportioning ecosystem component values through "nature-related" transactions (Hagedorn, 2008), defined as "interrelated changes in the utility of two actors that are mediated by the non-human, biophysical system and that are subject to intentional action (agency) by at least one actor" (Thiel et al., 2012).

The elements of the eco-institutional setting are mutually constitutive of each other.

Schematically put, I propose that what I call eco-institutional settings (see Fig. 1) apportion values from components of ecosystems among three groups of actors: a) natural resource users, broadly understood as anyone deriving a social, economic or ecological benefit from ecosystems, directly or indirectly (e.g. through economic production); b) governing actors who invest resources into governance following a bureaucratic or political rationale; and c) the broader electorate. This approach posits that the basic mechanism translating perception of a setting into deliberate action is based on actor and actor-group evaluation of perceived costs and benefits of different institutional set-ups and the costs and benefits of changing them (Poteete et al., 2010). These costs and benefits are derived from provision and production of ecosystem goods and services and have been defined as "components of nature, directly enjoyed, consumed, or used to yield human wellbeing" (Boyd and Banzhaf, 2007; cf. Nahlik et al., 2012) as well as production and transaction costs involved in providing for and/or producing ecosystem goods and services. However, ecosystem goods and services "are contingent on particular human activities or wants" (2007, p. 621; cf. Fisher et al., 2009), making them benefit-dependent. Further, a variety of jointly produced ecosystem goods and services are at stake in nature-related transactions (Vatn, 2002).

For institutional analyses, the role of economic, social and ecological values motivating action are of interest and can be ascribed to components of ecosystems, such as biophysical structures, functions or services (de Groot et al., 2010; Haines-Young and Potschin, 2010). My purpose in using the terminology of ecosystem goods and services is to structure the present analysis as opposed to accounting for the

[2] Interview: Ministerio de Medio Ambiente, Rural y Marino, 26.3.2010.