Commons in a Multi-level World

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Commons research has a history of emphasis on the community level, but community institutions are only one layer in a multi-level world. It is becoming increasingly clear that commons governance necessarily involves a network of interactions at various levels. An increasingly globalized world requires institutions that link the local level to the various higher levels of social and political organization. Such linkages can provide ways to deal with multiple management objectives (Brown et al. 2005) and multiple knowledge systems (Reid et al. 2006); they may result in the creation of networks for learning and joint problem solving (Carlsson and Berkes 2005) and may provide a framework for governance (Kooiman 2003).

Addressing problems of globalization is inevitable because communities are connected to national and global processes more than ever before (Young et al. 2006; Berkes et al. 2006), making them vulnerable to pressures and incentives that originate at other levels of social, political and economic organization. Communities respond to various outside pressures; these influences and the linkages between communities and other levels of political organization need to be studied and understood.

Such understanding requires attention to scale. There is a developing literature about scale and interplay of institutions across scale, indicating that institutional linkages and multi-level governance systems are important for a variety of reasons, both practical and analytical (Lebel et al. 2005; Adger et al. 2006). Consistent with Cash et al. (2006), scale is defined as the spatial, temporal or other dimension used to measure or study a phenomenon, and level as the unit of analysis located at different positions on a scale. Following the terminology of Young (2002), institutional interplay at various levels involves institutions that may interact horizontally (across the same level) and/or vertically (across levels of organization). Commons management needs to take account of such institutional linkages, the multiple levels of organization that
impact and shape institutions at the local level, and external influences or drivers. In this sense, a driver is any natural or human-induced factor that directly or indirectly causes a change in an ecosystem (Millennium Ecosystem Assessment 2003).

The consideration of these various factors and interactions moves the study of commons into the realm of complex adaptive systems. Following Levin (1999, p. 231) complexity may be defined as an interconnected network of components that cannot be described by a few rules; generally manifest in structure, order and function emerging from the interactions among diverse parts. Commons management, as a complex systems problem, should employ the tools and approaches appropriate for dealing with complexity. In addition to scale, self-organization is important, as it provides a unifying principle for complex adaptive systems (Levin 1999). In the case of commons, an area of primary interest is the way in which collective action originates and gets organized, the partnerships that emerge, and the horizontal and vertical linkages that come into being. Especially important here for the multi-level world are questions with regard to linking, and the effectiveness of NGOs and other groups that have a role in bridging scales (Cash and Moser 2000).

These considerations can serve to extend and elaborate commons theory, and they are not completely new in the literature. Ostrom’s (1990) classic example of the Spanish huerta irrigation system, with its nested irrigation canals (small canals, larger canals, ... river basin), is an example of the use of the scale approach in examining a complex system. Similarly, Lansing’s (1991) analysis of the Balinese water temples, with rice irrigation canals and temple-based institutions, is a superb example of the use of complex system thinking. Recent treatments of commons theory have been addressing the issue of scale with increasing sophistication (Ostrom et al. 2002; Berkes et al. 2003; Ostrom 2005). For example, complex systems theory holds that the levels in a hierarchy are linked but that each level requires new concepts and principles. Thus, processes at the community, regional, and international levels require different but overlapping set of concepts and principles; this is beginning to be reflected in the commons literature (Dietz et al. 2003).

Despite these developments, many commons researchers do not deal with scale or other aspects of complexity in a systematic way. To do so does not require a change in commons basics. Commons share two characteristics: (a) exclusion or the control of access of potential users is difficult, and (b) each user is capable of subtracting from the welfare of all others. These are the exclusion problem and the subtractability problem, respectively (Ostrom 1990; Feeny et al. 1990; Ostrom 2005). The exclusion issue is important because commons management is more likely to work if the users enjoy exclusive rights to the resource and have a stake in conserving the resource. The subtractability question is important because commons management proceeds by building on existing rules-in-use, many
of them at the local level. These local level rules are necessary but insufficient to
deal with commons management in a multi-level world.

In an effort to explore these issues in more depth, we organized a three-panel
session, ‘Community-based conservation in a multi-level world’, at the Biennial
Conference of the International Association for the Study of Commons (IASC),
held in Bali, Indonesia, June 2006. Our objectives were to investigate partner-
ships, networks, and cross-scale institutional linkages in conservation and re-
source management, using a grassroots perspective, while taking into account
multi-level governance. We included both conceptual and case study papers (and
those combining the two), providing examples from a range of geographical ar-
ees and resource types, and using interdisciplinary perspectives, in keeping with
IASC practice.

The first paper by Derek Armitage (Governance and the commons in a multi-
level world) aims to integrate insights from commons theory, resilience thinking
and political ecology. Starting with the recognition that governance of the com-
mons is a complex systems problem, Armitage searches for complementarities
in these three areas to find a common ground to deal with governance issues in a
multi-level world in which resilience, transformations, learning, and adaptation
are often necessary. Resilience approaches provide a constant reminder to keep
system dynamics in the forefront of analysis. Complementing commons and resil-
ience scholarship with political ecology helps establish the importance of context
and power relationships, further emphasizing the necessity of interdisciplinary
approaches.

The second paper by Lars Carlsson and Annica Sandström examines Network
governance of the commons. Starting with the premise that building institu-
tions is a matter of trial and error, and the idea that co-management is network
governance, Carlsson and Sandstrom proceed to add social network analysis to
co-management, and examine the kind of structural features that might improve
co-management performance. The resulting approach provides insights on why
top-down governance is often not adequate to deal with the complexities of re-
source management. The authors suggest that incorporating social network analy-
sis and attention to social capital will further this line of thought in commons
governance. Does the adoption of a network perspective on governance eliminate
the role of the state? Not at all, say Carlsson and Sandström, because the different
‘faces’ of the state are important actors in various policy processes.

The third paper by Martha Dowsley (Developing multi-level institutions from
top-down ancestors) takes an international agreement (Agreement for the Con-
servation of Polar Bears and their Habitat), throws in real or perceived crises
(originally over-hunting and now climate change), and adds to this the interna-
tional politics of five polar nations (USA, Russia, Canada, Norway, Denmark/
Greenland). And then asks the question: can a multi-level regime evolve from a
top-down ancestor (the Agreement)? The answer, as Dowsley shows, is mixed.
The Agreement is a barrier to addressing multiple objectives and local needs. Dowsley approaches the issue with knowledge of the local level (Inuit community organizations in Nunavut, Canada), and finds that vertical linkages are typically poor. Nevertheless, she finds some evidence that the iterative processes of resource management have been creating some space for a multi-level regime.

The fourth paper by Graham Marshall (Nesting, subsidiarity and community-based environmental governance beyond the local scale) explores the meanings and applications of decentralization. Marshall examines the notions of nesting and subsidiarity (decentralizing a task to the lowest level of governance feasible) and uses the example of Australia’s National Conservation Strategy. His conclusions based on more than two decades of experience in Australia are of general interest. Under the ‘regional delivery model’, the government has decentralized progressively greater powers to the community level, but the key decisions in environmental governance remain centralized. The resulting partnerships between government and the community level have remained largely as ‘purchaser-provider’ relationships, rather than the original vision of collaborative partnerships among equals.

The fifth paper by Cristiana Simão Seixas and Brian Davy examines Self-organization in integrated conservation and development initiatives. It uses examples from the UNDP Equator Initiative program that aim to learn from apparently successful cases of integrating biodiversity conservation with poverty alleviation in the tropical developing world. Seixas and Davy use a variety of sources of information and find that trigger events are important in self-organization, and catalytic elements include key players and leadership, seed funding, and partnerships and networks that deliver a variety of needs in building capacity. Seixas and Davy suggest that there is no one set ‘recipe’ but a variety of possible ‘ingredients’ and ‘cooking approaches’ that can result in successful conservation-development initiatives evolving opportunistically in a multi-level world.

The sixth paper by Louis Lebel, Rajesh Daniel, Nathan Badenoch, Po Garden, and Masao Imamura is about Multi-level perspective on conserving with communities: experiences from the upper tributary watersheds in montane mainland Southeast Asia. Lebel and colleagues build a framework for a multi-scale, multi-level perspective. Pointing out that most attempts at community-based conservation have not worked, Lebel et al. focus on the politics of scale as one explanation. Using upper watershed conservation examples from Southeast Asia, with focus on the hill tribes of northern Thailand, they suggest a scale-sensitive management framework that consists of asking ‘who and why’ (groups of people); ‘what’ (the resource); and ‘where’ (spaces).

This special issue of the International Journal of the Commons considers a variety of conceptual perspectives and lessons from cases to deal with the problems of a multi-level world. In terms of scholarly and practical significance, the special issue aims to contribute to extending and elaborating commons theory; under-
standing the issue of scale and institutional linkages; and understanding multi-
level governance of a commons with state, private and civil society actors.

Our collective inquiry shows that the commons literature is well positioned to
address issues of multi-level management, and globalization as well – which, ac-
cording to one definition, refers to the compression of space and time scales, with
regards to flows of information, people, goods and services (Young et al. 2006, p.
305). The papers illustrate the explanatory power of scale; what governance expe-
rience says about subsidiarity; issues of scaling up and down; and the political
importance of the choice of level, as it determines the kind of knowledge brought to
bear on issues and the choice of policy instruments. The choice of scale and level
is significant for deliberative processes. For example, dealing with biodiversity as
a global commons yields different considerations from dealing with biodiversity
as a local commons. The papers show that effective action at various levels often
depends on tackling the issue by first locating it in space and time.

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who came to the three panels and took part in the lively discussions. Many panel
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Literature cited

Adger, W.N., K. Brown, and E.L. Tompkins. 2006. The political economy
of cross-scale networks in resource co-management. Ecology and Society
Systems: Building Resilience for Complexity and Change. Cambridge: Cam-
bridge University Press.
Berkes, F., T.P. Hughes, R.S. Steneck, J.A. Wilson, D.R. Bellwood, B. Crona,
C. Folke, L.H. Gunderson, H.M. Leslie, J. Norberg, M. Nystrom, P. Olsson,
H. Osterblom, M. Scheffer, B. Worm. 2006. Globalization, roving bandits and
Washington, DC: Millennium Assessment and Island Press.


