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Welcome to the Spring 2014 issue of the *Commons Digest*! In this issue we highlight the 2013 Elinor Ostrom Award winners who were honoured during the 14th Biennial meeting of the IASC in Fujiyoshida City, Japan. The issue opens with an introduction to the Elinor Ostrom Award criteria by IASC President Leticia Merino. The award winners next present essays of their work on the commons, with some also speaking to the great influence Lin had upon their work. The first essays are from the Senior Scholar winners Ben Cousins, Charles Schweik, and Harini Nagendra. Following these essays, Young Scholar winners Eduardo and Dianne Araral present a personal account of their history with Lin Ostrom while Michael Cox provides a summary of his work in the commons. The issue closes with essays by the Practitioner Award winners: The Open Spaces Society (UK), the Environmental and Social Studies Group (GEA) (Mexico), and the Foundation for Ecological Security (India) who each highlight their work and efforts for the commons and collective action.

We would also like to highlight the calls for abstracts for the 2015 Gloabl IASC Conference, as well as information on two IASC sponsored conferences, the Third European Regional Meeting in and the Second Thematic Conference on Knowledge Commons. Check the **Announcements** section for details. We hope to see many of you there. **Enjoy!**

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Commons Forum Reflections

Introduction to the Elinor Ostrom Award

Leticia Merino

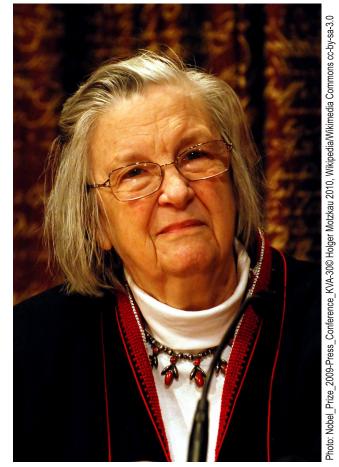
President of the International Association for the Study of the Commons

In 2010, during an interview with TV UNAM, Elinor Ostrom was asked about the relevance of the commons at the beginning of the 21st Century. Lin (as she would kindly let people around her call her), strongly answered referring to the challenges faced by global commons and their consequences. She also spokel about the relevance of local commons (generally common-pool resources) such as forests, and pastures for today's great challenges, such as the loss of biodiversity and global climate change.

Commons cover an immensely wide range of resources, not only in terms of the variety of the resources themselves (basins, lakes, the atmosphere, genetic resources, the Internet), but also in terms of the regions of the world where they have a fundamental importance for the subsistence for communities and the scale of the processes in which they take part. Lin's prolific academic and professional career covered many types of goods, themes and regions, usually working in collaboration with others: academics. students and practitioners. She always sought to contribute to a better understanding of collective action processes, an essential dimension of the commons, while her questioning was deeply rooted in a problem solving interest. She aimed to contribute to better public policies,



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Elinor Ostrom, Founder of the IASC

to better governance schemes, to better community social life and living conditions. The Elinor Ostrom Award on Collective Governance of the Commons has been instituted by the International Association for the Study of the Commons and other institutional partners, as a joint effort not only to celebrate the work and life of the Nobel awardee, but also to acknowledge and of academics promote the work and practitioners devoted to the understanding and practical work on the commons, aiming to maintain Lin's large legacy as a living one.

The group of the 2013 recipients of the Elinor Ostrom Award show the wide variety of experiences of those interested and/or using and managing commons. From the community forests in India, to land tenure in South-Africa and irrigation in the Philippines; from the common open spaces in the United Kingdom, to the water tanks and dry forests of poor communities in Mexico and to Knowledge Commons, the experiences awarded also show the challenges faced today by commons and communities as well as the commitment and innovation which they frequently address and sometimes overcome.

Some of the awardees expressed the deep intellectual and emotional impact Lin Ostrom had in their careers and lives. Everybody acknowledged the powerful influence of her research and approach in their work. We want to let them share with the readers of *The Commons Digest* their work, experiences, approaches and projects.

We deeply want to thank all the members of the Award Council, who believed in this project, a dream we were able to share with Lin herself. Without the commitment of: Arun Agrawal, Pedro Álvarez, Xavier Basurto, Fikret Berkes, Juan Camilo Cárdenas, Meriem Boumrane, Tine de Moor, Marco Janssen, Charlotte Hess, Ruth Meinzen-Dick, Esther Catherine Tucker, Frank Mwangi, van Laerhoven and José Sarukhán, this initiative would never have been possible. Special thanks are also due to the Ford Foundation and within it to David Kaimowitz and Mario Broffman in particular. We also want to thank all the evaluators for their hard work and commitment even with great time pressures.

Finally, we wish to extend a special recognition to the Vincent and Elinor Ostrom Workshop on Political Theory and Policy Analysis, for continuing the work led by Lin and Vincent.

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The Commons in Rural Southern Africa: Reflections on Efforts to Link Research, Theory, Policy and Politics

Ben Cousins

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first became aware of the importance of common property arrangements in rural Southern Africa in the late 1970s, when I helped to set up an agricultural training centre in Swaziland. The centre sought to train school-leavers and help them to become small-scale commercial farmers, either on communal land under customary tenure or on settlement schemes. I was asked to manage the livestock enterprises at the centre (made up of small numbers of dairy and beef cattle, pigs and poultry) and teach the relevant courses. This meant that I had to stay up late at night reading about how to devise feed regimes for commercial dairy cows and treat poultry diseases, but also more generally about the role of livestock in African rural economies. This was my first encounter with "communal tenure" and one of its key components, the grazing commons. One book mentioned something called "the tragedy of commons", but did not explain exactly what it was.

In 1983 my family and I moved to newly independent Zimbabwe, after my application to return to South Africa was refused by the apartheid government. In Harare I worked as a curriculum developer and trainer for Agritex, the government department responsible for training and extension services. Farming systems research was all the rage at the time, and I adopted a "systems approach" in developing training courses for extension staff, whose efforts were now directed at supporting small-scale rather than large-scale farmers. One training course was on small livestock, for example, and once again, the grazing commons came into view. A heated debate was under way on the overstocking and overgrazing of grazing land, at the very centre of which was the character of systems of shared rights to natural resources such as rangelands.

The head of government's farming systems research unit told me that grazing schemes were at the centre of policy on communal rangelands. These involved rules limiting stock numbers and providing for rotational grazing within fenced paddocks, enforced by an elected committee. He suggested that I undertake some research on the issue. My contract with the extension service was ending, so I wrote a proposal to do research on grazing schemes for an MPhil thesis through the Centre for Applied Social Sciences (CASS) at the University of Zimbabwe. Professor Marshall Murphree, the director of CASS, turned my notes into a funding proposal, and used it to secure generous funding from IDRC of Canada. Within six months I was employed as a research fellow to do fieldwork for my own masters thesis, which I upgraded to a DPhil. The focus of my study was decision-making in grazing schemes, which I saw, at least potentially, as a type of common property arrangement.

A major focus of research at CASS at the time was a community-based wildlife programme ("community as CAMPFIRE known management programme for indigenous resources"). My colleagues and I began to read the emerging literature on the commons (Ostrom, McCay and Acheson, Bromley, amongst others), and attempted to apply



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these ideas to property regimes in the communal areas. We grappled with Hardin's notion of a tragedy of the commons and with critiques of his conflation of common property and open access. We also debated the meaning of "community", and I discovered that there were literally hundreds of definitions of this elusive entity in the sociological literature. Raymond Williams' book *Keywords* reminded us that the term is "warmly persuasive" and always used to describe relationship with positive connotations, either existing or alternative.

The notion of community was a key reference point in post-independence Zimbabwe. The appeal of a programme such as CAMPFIRE was its premise that income from wildlife (e.g. from contracts with safari hunters) would be equitably shared amongst community members. "Sustainable use" of wildlife would result in members of poverty-stricken rural households having a material stake in the conservation of high-value species vulnerable to poaching, (like elephant and rhino). It seemed to us that researchers should actively engage with policy makers and field staff to persuade them that common property arrangements of this kind were perfectly feasible. We were drawn into arguments over institutional design, and strove to practice rigorous and theoretically informed empirical research that could also help improve the world. We were inspired by the example of CASS director, Prof Murphree, who undertook field research in the bush but also advised government and served on conservation bodies.

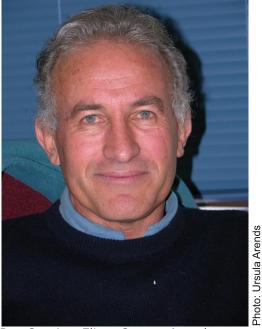
In debates on communal area wildlife, in particular, a key focus was the devolution of both property rights and decision-making powers from the state to local communities. Prof. Murphree and others argued forcefully for the full devolution of rights and powers, using arguments from the commons literature. But some scholars, like my colleague James Murombedzi, argued that tensions and conflicts in relation to resource access within the wider political economy, such as unequal access to high quality farm land, within a "dualistic" agricultural sector still defined largely in terms of race, were also relevant. Working only within the bounds of densely-settled communal lands as defined by colonial land dispossession was thus inherently limiting of the possibilities for enhancing livelihoods based on natural resources. Redistributive land reform was necessary, and should both inform and be informed by emerging perspectives on the commons.

South African exiles living in Harare in the 1980s took a keen interest in political developments in post-independent Zimbabwe, with an eye to the challenges that would one day face a democratic South Africa. A key issue in both societies was the complex interweaving of racial oppression and class exploitation, and a key challenge for liberation movements coming to power was how to address both axes of inequality simultaneously. Was Zimbabwe succeeding in meeting this challenge, and if not, why not? Officially the country was socialist, but increasingly it seemed that a new black elite was simply using nationalist rhetoric to wrest control from the old, white ruling class. Class formation after democracy seemed to be a central issue to understand and confront.

As my research on grazing schemes evolved, I tried to integrate my interest in these wider political questions into the research design. Notions of "community" tend to obscure key differences of wealth and power, defined by class and gender in particular, as Pauline Peters' work on rural Botswana showed clearly. How did these kinds of differences influence decision-making within grazing schemes, and how did the unequal ownership of livestock (and cattle in particular) impact on decisions



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Ben Cousins, Elinor Ostrom Awardee

and on the distribution of benefits from the commons? Answering these questions would require appropriate conceptual frameworks and research instruments for the collection and analysis of data on social differentiation; hence I needed to read the literature on peasants, class and rural politics. This took me to the work of a scholar whose ideas have had an enduring influence on my thinking, Henry Bernstein, and eventually to the conclusion that cattle-owning political elites in rural communities in Zimbabwe are best described as agricultural petty commodity producers. These are well placed to capture interventions such as grazing schemes and turn them into vehicles for capital accumulation. Here, property and power are aligned in rural class formation processes in a rather different manner to the classic agrarian transition in England as theorised by Marx.

Other researchers working in Zimbabwe's communal areas offered insights of a different kind. Ian Scoones and Ken Wilson showed that the spatial and temporal heterogeneity of grazing, woodland and water resources is a crucial feature of natural resource regimes, and that seasonal variations in the use of key

resources help sustain high stocking rates. I decided to investigate these aspects in my research sites, and seasonal herding data helped me to understand why fenced paddocks for rotational grazing were seldom utilized in manner prescribed by conventional the wisdom. I concluded that there was a severe disjunction between the "technical" and the "ecological" aspects of this incipient common property regime. Influenced by emerging models of non-equilibrium ecological dynamics on African rangelands, I was also persuaded by the arguments of Scoones, Stephen Sandford and Roy Behnke that too much had been made of so-called "overgrazing" and "overstocking", and that attempts to restrict stocking rates on communal rangelands to those recommended for commercial beef ranching were not only likely to fail but were also inappropriate. A focus on increasing the efficiency of opportunistic grazing strategies, which attempt to track environmental variability, seemed to make more sense.

In relation to decision-making in grazing schemes, my case studies showed clearly the mismatch between official rules on resource use and actual practice. Fenced paddocks tended to be used by herd owners for short periods in the summer months as alternative to herding, so that they could attend to crops or domestic duties. In winter the paddocks were barely used, with animals feeding on crop residues in the fields in autumn and in key resource patches such as wetlands in late winter. I also discovered that apparently clear and acknowledged the boundaries between these "communities", both physical and social, were in practice rather flexible and porous. Fencing which excluded neighbours' livestock often generated conflict rather than preventing it.

Conflict was in fact the rule, rather than the exception, in my study sites. Contests for leadership positions surfaced, sometimes in

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development projects with outside funding (providing opportunities for accumulation), sometimes in succession to positions of "customary" authority, such the sabhuku (village head). The significant economic value of high-density, multi-purpose, livestock production systems, together with the unequal within distribution of livestock classdifferentiated "communities", meant that questions of the commons often became a key focus of local politics, albeit a covert politics often shrouded in discourses of development and resource conservation, or "custom".

What could all this mean for policy? Perhaps the most obvious message for government officials and donors was that interventions should be based on solid understandings of the character of communal area livestock production systems and the resource strategies that underpin them. This meant acknowledging the high economic value of multiple-function livestock, and cattle in particular, which can provide draught power, manure, milk, meat, hides, cash from occasional sales, savings and investment, and play a key role in social and ceremonial life. Promoting higher levels of off-take for the beef market, with a view to reducing stocking rates on the commons, is unrealistic and tends to benefit accumulating village elites rather than ordinary commoners. Improved management of grazing resources would not be achieved by pushing farmers to install the fencing and rotational grazing technologies that work for commercial beef ranchers, but rather by increasing the efficiency of opportunistic tracking strategies.

Together with colleagues, Ι tried to communicate these policy messages to influential players in the policy world, in workshops, seminars and research reports... but to almost zero effect. This taught me an important lesson about the power of entrenched ideas and the difficulty of changing

them: presenting research findinas and proposing alternatives is clearly not enough. Dominant ideas do not arise by accident or default; they are underpinned, albeit in complex ways, by particular social interests and strategies, in this case those of the new black middle class in the state and would-be accumulators in villages. Changing policies requires a form of politics, and while research, new ideas and policy proposals can help inform that politics, and indeed are important resources for it, ultimately politics is driven by people whose direct interests are at stake and must change the power relations.

I returned to South Africa in 1991 after 19 years in exile, to a society wracked by decades of conflict and eagerly awaiting the outcomes of а painfully negotiated transition to democracy. In addition to lecturing in anthropology at the University of the Western Cape and completing my doctorate, I tried to contribute ideas about land-based livelihoods, livestock production, property rights and the commons to intense debates on land reform and agrarian restructuring. It took some time, but by the time of our first democratic election in 1994 I was participating in discussions of new land tenure laws and policies. Tenure reform was to take place alongside an ambitious programme of land restitution for members of black communities who had suffered forced removals, and large-scale land redistribution in order to correct the raciallydefined and extraordinarily unequal distribution of land. It was a shock to discover that few Africans had read the emerging South scholarship on the commons.

In 1995 I was assisted by Ford Foundation to establish a centre at the university that would engage in applied research on land and agrarian reform and natural resource management, feeding the findings into policy making processes, and helping train a new generation of black social scientists with

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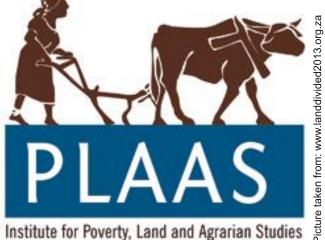


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relevant expertise. Thus was born the Programme for Land and Agrarian Studies, PLAAS, which is also the word for "farm" in Afrikaans . The commons in one guise or another became a key focus for PLAAS - in relation to tenure reform in communal areas, the harvesting of wild resources within rural livelihoods, community-based natural resource management programmes (fisheries, forests, water and wildlife), and what kinds of farming systems to support through agrarian reform.

Initially PLAAS staff worked closely with various government departments, but after 1999, when the first president Nelson Mandela stepped down, relations with the state became increasingly adversarial. Officials reacted with defensiveness and hostility when researchers criticized shifts in policy that they felt were anti-poor, such as not recognizing the rights of artisanal fishers, or strengthening the powers of chiefs at the expense of ordinary people living in communal areas, or prioritizing the land needs of better-off black commercial farmers over those of the rural poor. PLAAS researchers began to work more closely with partners in the activist NGO sector than with government, and their findings and ideas fed into civil society advocacy and campaigning. In led several cases this to researchers supporting community groups making presentations in parliament, or joining civil society litigation as expert witnesses. As in Zimbabwe, it had gradually become clear that policy work had to become "political" to have any real effect.

My research and policy engagement work since returning home has been informed by the lessons I drew from my research on grazing schemes in Zimbabwe. But these have had to be adapted and extended to address South African particularities, and here I have been fortunate to work with some outstanding South African scholar-activists. In brief, it seems to me that:



Institute for Poverty, Land and Agrarian Studies PLAAS as an important referent for Cousin's work

it is exceedingly difficult to loosen the grip of modernization ideology on the thinking of government officials, but rigorous empirical assessments of the ecological aspects and the real economic value of smallholder farming and regimes of natural resource use do help (the work of my collaborators Timm Hoffman and Charlie and Sheona Shackleton has been exemplary here);

tenure reform for effective commons management in Southern Africa takes place in the context of the highly unequal agrarian structures of former settler-colonial economies, and thus has to be complemented by radical land redistribution; on the other hand, tenure systems on redistributed land also have to be designed with the commons in mind (as former PLAAS colleague Stephen Turner has always insisted);

strong local institutions are vital for • effective commons management, but have to be downwardly accountable to rights-holders to prevent elite capture. Uncritical acceptance of contemporary versions of "customary" authority run the risk of undercutting such accountability, and of reinforcing the distortions inherited from the colonial era when indirect rule via "traditional institutions" was put in place (here the insights of my co-author



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Aninka Claassens have been crucial);

• land tenure systems derived from customary principles often involve nested layers of authority that correspond to levels of social organization, and a key feature is flexible boundaries between social units and their territories (as shown by HWO Okoth-Ogendo). Titling of community land runs the risk of imposing exclusive boundaries and unaccountable authority structures that will generate more conflicts than do flexible boundaries and decentralized governance;

• "custom" is a site of struggle between contending interest groups in processes of social change, such as the current decline of marriage amongst Africans, and can generate severe tensions and conflicts (Creina and Rauri Alcock have helped me understand some of the complexities);

• smallholder farmers in rural South Africa, as in Zimbabwe, are socially differentiated by class and also by gender and other identities, articulated with one another in a complex manner. Land reform has to directly address the causes and consequences of such differentiation or risk capture by an emerging rural capitalist class (as discussed by Bridget O'Laughlin and Henry Bernstein).

Right now, South Africans are commemorating the 1913 Natives Land Act and debating its long-term impacts. This law was an important milestone in the history of land dispossession and in the designation of small and densely settled "native reserves", where black people were allowed to hold land under distorted versions of customary law, but from which they were also compelled to migrate in search of wages. Understanding these processes and their legacies should inform land reform policies capable of transforming the divided and unequal landscape of post-apartheid South Africa – but are they?

Land redistribution now appears to be for the relatively well-off only. Liberalization of the agricultural sector is leading to massively concentrated ownership of private farmland, and farm worker jobs are being lost through mechanization of these ever-larger farms. And the old reserves are still there, and sites of the deepest poverty. The policy of the ruling ANC is to greatly enlarge the powers of chiefs and traditional councils within "tribal" boundaries established during the apartheid era. In areas with major mineral resources such as platinum, this is leading to the appropriation of mining royalties worth billions of rands by families, unscrupulous chiefs and their apparently with the approval of both government and the courts, and cloaked in (in qualitative as well as quantitative terms) the notion of "black economic empowerment". Across the South African landscape, new enclosures of the commons are under way, and only the mobilization of commoners will be able to stop them. Research can assist, but in the end, it is politics that counts.

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Reflections on Being an Elinor Ostrom "Senior Scholar" Recipient

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am extremely humbled to have been selected as a Senior Scholar recipient of the Elinor Ostrom Award on Collective Governance of the Commons and I now reflect upon receiving this award, and how my work relates to the commons.

My selection may be a surprise to some The Commons Digest readers who may not be familiar with my work. I think it reflects, in part, the selection committee's awareness of the importance of a relatively new and emerging area of commons research that still lacks an agreed upon name. Some refer to it "New Commons", others, as the the "Information Commons". I prefer the term "Knowledge Commons", in part inspired by (Hess and Ostrom, 2006).

For those who are unfamiliar with my work, let me start with some history. I have a computer science undergraduate degree and am a former programmer with IBM. After about six years, I decided to go back to graduate school and received a Masters of Public Administration at Syracuse University's Maxwell School with a focus on public sector information technology management. I then worked as a consultant with the U.S. Department of Energy for a year and a half, working on environmental cleanup databases. This work led to an interest in environmental policy and management and through a connection with my most important collaborator, my life-partner Brenda Bushouse, I met Lin Ostrom. Brenda and I both were invited to pursue PhDs at Indiana University working under Lin's mentorship.

My first research assistantship with Lin in 1993 was as a database programmer working on the first few years of the International Forestry Resources and Institutions program. Through this work along with my graduate school program, I became immersed in theory and empirical work in a variety of natural resource commons settings (e.g., irrigation and water etc.). forests, fisheries, resources, Mv dissertation started what has become an underlying theme throughout my career up to connections now making between _ information technology and the study of the commons. Like others affiliated with the Center for the Study of Institutions, Population and Environmental Change (CIPEC) at Indiana University, Ι was interested in making connections between landcover change patterns as detected by multispectral satellite imagery (e.g., Landsat) and the spatial and temporal distribution of institutions (rules-inuse) that create the incentive structures that ultimately drive human action that create such land cover changes. In this case, working with Lin and others at CIPEC, I was trying to move our understanding of natural resource governance and management forward through the utilization of (relatively) new information technologies.

A year or two after I graduated and joined the University of Massachusetts at Amherst (~1998-1999), I first heard the phrase "open source software" and at this point my previous life as a programmer and my current career as



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Charles Schweik, Elinor Ostrom Awardee

a "commons scholar" converged.

Before I go further, let me take a moment to explain to The Commons Digest readers who may not be familiar with open source software why it is so important to people with an interest in the commons. The great innovation the early-1980s when MIT came in programmer Richard Stallman began to reject the trend that software was a proprietary product that could or should be sold as a commodity. Prior to that, much of the software in existence was shared as a commons and collaborated upon by programmers. As a result, Stallman began to develop a new computer operating system called "Gnu". It is at this juncture that Stallman made a vastly important innovation often referred to as "Copyleft" (a play on "copyright"). He wrote a legal copyright license (called the "General Public License" or GPL) that granted users of his Gnu software a variety of freedoms. Among them the freedom to: (1) run the software; (2) modify the software; (3) redistribute the software to others; and (4) distribute modified versions of the software with the stipulation that the new version of the software takes on the same copyright license as its "parent". GPL-licensed software is often referred to as "Free/Libre Software" (free as in the above freedoms rather than free as in cost). In the years that followed, other licenses were developed that were more commercial-friendly or slightly different than GPL-like licenses. The term "open source" (OSI, 2013) is used to describe software projects that are philosophically different from their Free/Libre counterparts. For simplicity, I use "open source" to capture both "free/libre" and "open source" types of software.

Back to my history. In 1999, when I first heard phrase "open source" the and began understanding what it was, and having my background in environmental commons, I came to the realization that open source software projects were a form of Internetproperty regime. based common More importantly, I realized that the collaborative principles encouraged through the use of "Copyleft" could have important utility in other areas besides software. Simply put, the freedom ideals underlying Copyleft licensing could be applied to anything digital. As an Internet-based form of collective action, the open source collaborative paradigm had great potential for how humanity might tackle "wicked problems" in the future.

A few years after I had this revelation, important innovations such as Creative Commons (2013) licensing appeared that were implementing what I had been thinking, and with the help of the Internet and Web, "open source" collaborative principles were moving into areas such as collaborative writing (e.g., Wikipedia). Over this last decade we have now seen at least some of these open source ideas spread into areas such as "open government", "open education", "open source science", and "open source hardware".

My realization regarding the importance of open source as a system of Internet-based collaboration in 1999 led to a major shift in my research program with its collaborative aspects as a focal point. As I began to read the existing literature on open source at the time (around 2000-2004) I discovered that the vast majority



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literature the of on topic was either promotional material, or material describing some of the large "success stories" in open source, such as the widely used Linux operating system and the Apache Web Server. I began to realize that there was a significant need for a systematic study of open source software projects that (1) better represented the population of open source projects, and (2) looked at these projects as socio-technical systems and as common property regimes. Of course, as a student of Lin Ostrom's, I was interested in the governance and institutional designs of open source projects. I was fortunate to land a US National Science Foundation grant in 2005 to study these as a form of Internet-based commons. The foundational research question:

What factors lead some open source software commons to ongoing and sustained collaboration while others become abandoned?

My talented team of graduate student collaborators* and I developed more than forty testable hypotheses (or sub-research questions where no a priori expectation could be identified) based on theory and empirical work from a variety of different fields including software engineering, virtual teams and distributed work, and of course, environmental We secured two databases one commons. with more than 107,000 open source projects in 2006, and another with more than 174,000 projects in 2009, and augmented the 2009 database with additional data we collected via a survey of more than 1400 developers. After more than five years of work on the project, we produced a variety of papers (see "Representative Publication List" at the end) and a book related to this research. Given space limitations, I will briefly mention two key findings that The Commons Digest readers might find interesting and are representative of the kind of work I do.

First, we found that the vast majority of open source software development teams are very small in size - one to three developers - and are often motivated to collaborate because they themselves use the software. This finding - in and of itself - is not new. But what was very interesting is that we found (and show, statistically) that projects that appear to be successful and maintain ongoing collective action tend to grow slightly in terms of team size. They gain a developer. Moreover, we discovered that half the time this new developer is someone who physically resides on another continent! We have strong quantitative evidence suggesting that the combination of Internet search engines like Google, coupled with Internet "hubs" like Sourceforge.net (a hosting site for open source projects) act as an intellectual match-maker of People around the world with like sorts. interests, needs, and skills to find each other throuah these systems and beain to communicate and eventually work together. In short, online collective-action in open source, isn't about growing large teams, but making these connections between a few people who are very interested and passionate about a particular problem. This discovery has important implications for our knowledge of how open source software collaborations occur, but I think it also explains what we are witnessing other in areas of online collaboration.

A second finding is that while as a commons scholar I recognize and appreciate the value of face-to-face interaction in building social capital, what we have discovered is that inperson face-to-face interaction is not a necessary condition for collaboration. Many of the successful projects in our dataset had developers working together who had never met in person. They had built relationships with each other only through Internet-based communication (e.g., Internet Relay Chat, email, Internet telephony).



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These findings are representative of this theoretical and empirical work I have tried to accomplish through my systematic study of open source projects as a form of Knowledge Commons. More information on this particular study can be found in the paper being published in the International Journal of the Commons (Schweik and English, forthcoming) or in rich detail in Schweik and English (2012).

While my open source work has been the focal area of my research over the last decade, there are other areas that have emerged in parallel that are related to online collective action, information sharing, creation of new derivative work, and the idea of Knowledge Commons in general. These areas include:

• Research on citizen engagement/crowdsourcing for environmental management. Specifically, I have a USDA funded project that uses smartphone technology to help in the protection of river ecosystems from non-native invasive plant and insect species (Outsmart, 2013).

Promotion and production of open • access and collaboration in educational material. This includes the promotion of open resources access educational in hiaher education (Billings, et al., 2012) and my efforts, over the last five or more years encourage collective action between educators internationally who are interested in building the user community of open source geospatial technologies (OSGeo, 2013).

• Collective action around the systematic study of Knowledge Commons. More recently, I've organized a group at my own institution that is based on the collaborative principles I witnessed at the Ostrom Workshop in Political Theory and Policy Analysis encouraging coproduction following a workshop-like, mentorapprentice type model where everyone's opinion is valued with little hierarchy. I've also been working with other Knowledge Commons scholars to develop a network of coordinated research nodes (see http://knowledgecommons.net/).

Research on the production and • distribution of openly engineered hardware and data collection for science. Finally, I have just started a new project investigating the use of openly engineered hardware for support of science, working with do-it-yourself groups like PublicLab.org. One of the goals in this effort is work toward low-cost scientific and to environmental monitoring technologies that can be deployed and used by citizens themselves - in all parts of the world - to do their own environmental monitoring.

I hope the above gives some interested readers a sense about what I've been doing over the last decade. Where possible, I've provided the Award organizers examples of some examples of my research that could be made available through the Ostrom Award website.

Lin Ostrom Student Mentoring Design Principles

As many readers know, Lin was famous for many things, including her efforts to identify "design principles" for long-enduring natural resource commons. Perhaps the only work that might rival her efforts to do research on the commons was her efforts to mentor the next generation of commons researchers. So to conclude, and to honor Lin, I thought it would be appropriate to communicate to others in this forum on her mentoring style. I learned a great deal watching her in action. The list below highlights some of the key "Lin Ostrom Mentoring Design Principles":

• Work extremely hard to fund and support your apprentices and your support



staff.

• Let your apprentices do – and give them multiple opportunities to grow and to achieve under your watch.

• Be generous with your time; meet with your apprentices regularly.

• Keep a sense of humor and fun in your work.

• Lead through example. Inspire your apprentices to act through your actions.

• Surround yourself with extremely capable people who also contribute to the mentoring of your apprentices. (This point relates to all of Lin's colleagues who work at the Ostrom Workshop in Political Theory and Policy Analysis, and also at the CIPEC where I was a graduate student.

As Lin so often said in one-way or another, with a smile and a glimmer in her eyes: "There is important work to be done". The best way we can honor Lin's memory is to turn to get to work on the next generation of commonsrelated research and encourage our own apprentices to do the same. It's a great honor to receive this award, and my intention, over the next stage of my career is to continue to pay it forward.

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*Robert English, Sandy Haire, Meng-Shiou Shih, Quentin Lewis, Qimti Paienjton, and others.

For Further Reading

Billings, M., Hutton, S.C., Schafer, J. and Sheridan, M. "Open Educational Resources as Learning Materials: Prospects and Strategies for University Libraries." Research Library Issues 280(1). September 2012. http://publications.arl.org/rli280/

CIPEC, 2013. http://www.indiana.edu/~cipec/ Hess, C. and Ostrom, E. 2006. Understanding Knowledge as a Commons. Cambridge, MA: MIT Press. Creative Commons, 2013. http://creativecommons.org/.

IFRI, 2013. http://www.ifriresearch.net/

Geron, T. 2013. "Bill Gates, VCs Invest \$35M In ResearchGate to 'Open Source' Science." http://www.forbes.com/sites/tomiogeron/2013/06/04/billgates-vcs-invest-35m-in-researchgate-to-open-sourcescience/

OSDD, 2013. http://www.osdd.net/

OSGeo, 2013. http://www.osgeo.org/education

OSI, 2013. http://opensource.org/

Outsmart, 2013. http://masswoods.net/outsmart.

Pearce, J.M., Blair, C.M, Laciak, K.J., Andrews, R. Nosrat, A. and Zelenika-Zovko, I. 2010. "3-D Printing of Open Source Appropriate Technologies for Self-Directed Sustainable Development," Journal of Sustainable Development, 3 (4): 17-29.

Schweik, C.M. and English, R. 2012. Internet Success: A Study of Open Source Software Commons. Cambridge, MA: MIT Press.

Schweik, C.M. and English, R. forthcoming. Preliminary Steps Toward a General Theory of Internet-Based Collective-Action in Digital Information Commons: Findings from a Study of Open Source Software Projects. International Journal of the Commons.

Stallman, R. 2010. "The GNU Project." http://www.gnu.org/gnu/thegnuproject.html.

The White House, 2013. Open Government Initiative. http://www.whitehouse.gov/open.



Reflections

Harini Nagendra

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For Lin: In Memory of our Tuesday Conversations

t is a great privilege and honor for me to write this essay for The Commons Digest as a recipient of the 2013 Elinor Ostrom Senior Scholar Award for Collective Governance of the Commons. As I write, I am sitting in my office on the 9th floor of a tall building in an academic campus in the incipient megapolis of Bangalore, with a magnificent view of the city. To the west, I can see a 6-lane high-speed highway choked by traffic, full of people frenetically commuting from their homes in city to their jobs in the globally famous Information Technology campuses located just outside. To the east, I am fortunate to witness a completely different picture. A tranquil marshy wetland and freshwater lake, with dozens of cows grazing and cooling down in the water while the mid-day sun blazes overhead, companiably accompanied by hundreds of cattle egrets feeding on the insects that annoy the cattle. This idyllic picture of cooperation, mutualism, and rural bliss has evolved and been sustained over centuries in Bangalore (Bangalore's lakes are not natural, but were historically created and maintained by local communities, with a history that can be traced as far back as 450 AD). Yet even this picture is marred if you slightly turn your head to the left, by the obvious presence of construction (presumably of a high rise building) next to the wetland, which has already resulted in the dumping of large mounds of debris into one side of the lake.

Such contradictions of livelihoods and lifestyles, urbanity and rurality, shared cooperation and rampant self-interest, may be typical of India but are certainly not unique to it. Certainly, the situation I have just described in Bangalore could be familiar to people in many other countries, even continents. Conflicts such as these just described have given rise to, and are exacerbated by, some of the worst inequities that the world has ever experienced. Just today, I was reading an Oxfam report (released on the occasion of the World Economic Forum meeting at Davos), that quoted a staggering figure: the world's richest 85 people now collectively own as much money as the world's poorest 3.5 billion! In a world that seems to be moving towards increasing self interest, and growing private control of the environment and natural resources, how can we ever hope or plan for a better future?

Lin Ostrom's work and ideas are of extraordinary relevance in these troubled times. Lin spoke eloquently and effectively, backed up by a wealth of empirical, experimental and theoretical evidence, to raise the attention of policy makers to a third alternative to the commonly espoused twin pillars of private and government administration, i.e. that of the community. Yet she was far from naïve, and distrusted the formulaic approach so often taken by policy makers to expand the role of communities on paper, but not on ground. Lin believed that



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governments had an important role to play in governance, and with her colleagues, strongly promoted the approach of polycentric governance. Research on polycentricity from case studies in diverse contexts across the world has now proven clearly that multi-level collaborations between local community groups, civic society actors and government administration are essential for the effective, equitable and sustainable governance of natural resources. Such collaborations, to be effective, should be built on openness and trust with the capacity for adaptive learning and negotiations on an equal slate between different groups that may have very different power structures, however. Developing the platform to allow negotiations at an equal level is particularly challenging in the context of high economic growth, when natural resources are most at stake. The imbalance between power structures is clear when natural resources are monetized, whether in the context of fracking and industrialization in China and the USA, or water withdrawal and ground water privatization in Latin America and India.

How does one conceptualize, understand and begin to address such issues of imbalance? Certainly not through disciplinary perspectives alone. Although deep engagement with specific fields of thought and scholarly enquiry are essential, so is the need for cross-fertilization between scientific disciplines, as well as sustained dialogue and respectful contestation (as Lin would put it!) between academics, educationists, practitioners and policy makers. My collaborations with Lin over more than a decade, from 2000 to 2012, has greatly reinforced my belief in the importance of such dialogue. I received my basic training as an undergraduate in Microbiology in 1992, followed by a Masters in Biological Sciences and a PhD in Ecology in 1995 and 1998. When I completed my PhD, although I had moved considerably across disciplines, I was still firmly rooted in the scholarship and modes of



Harini Nagendra, Elinor Ostrom Awardee

enquiry shaped by the biological sciences. Yet it was obvious that these approaches to enquiry, although very important, would not be sufficient to provide insights into how to manage India's endangered ecological resources: especially when humans were the cause of (as well as the solution to!) many problems of rapid change.

Effective governance is the key, obviously. Yet, to address these thorny challenges requires an adequate appreciation of the complexities of politics and political science, which is often lacking. Thus for instance, the approach propounded by many conservation biologists, viewing the world from a pedestal of disciplinary supremacy, is to eliminate the human as the source of the problem. In practice, such a vision results far too often in permitting the high end tourist to roam free with her cameras, dependent on unsustainable luxury resorts connected by high speed road networks, while simultaneously restricting the low income local commoner from her traditional practices of sustainable harvest of fish, fodder or fuel wood. Is this really good for the tiger (or the Monarch butterfly, or whichever is the charismatic flagship species of interest being promoted)? Unlikely, as widespread examples from any IASC meeting



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Elinor Ostrom, Harini Nagendra and Nagendra's daughter in Bangalore, 2008 will demonstrate.

Why, then, are such approaches still widely promulgated by governments, influential thinktanks and international policy makers? Clearly, lack of information does not constitute a barrier. Perhaps it is the lack of dialogue, exacerbated by the imbalance in power, that is the problem. It is the same lack of dialogue imbalance power between and in the urbanized landscape to the west of my office (with its character shaped by the shared use of large roads by high speed traffic), and the rural landscape to the east (with its character shaped by the shared use of wetlands by cattle and people), that leads to the dominance of the road over the lake, of the need for speed and linear growth over reflection and an appreciation of the cycles of life. Such an imbalance in appreciation, in ideology, almost inevitably leads to the disappearance and decay of these commons in urban areas. Cities thus become oceans of gray in a quest for endless economic growth, swallowing up all the little islands where commoners once thrived and flourished in respectful contestation and adaptive dialogue with nature.

My research with Lin on the rural forests and urban commons of India and Nepal taught me much about the need to set aside disciplinary

preconceptions (including the widespread and highly mistaken notion that ecology is a "hard" science while the social sciences are "soft", therefore ultimately biased, flawed and to be discarded). Lin herself was a guintessential blurrer of boundaries: awarded the Nobel Prize for Economics, she was as far removed from macroeconomic traditional approaches to global growth as it was possible to be. Her Design Principles were deeply influential for so many of us who are part of this global and vibrant community of the Commons, including practitioners, academics and commoners, policy makers. Even more influential, as I believe time will show, are her ideas on the Social Ecological Systems (SES) framework, which she developed in a series of articles from 2007 onwards, and on which she was working tirelessly even towards the very end of her life, from her hospital bed. Through this framework, scholars and practitioners of the commons have a chance to engage with questions of power, agency and political economy in a more deep and incisive manner.

Lin and I collaborated on research that used the SES framework that she developed for the very first time to study issues of governance of the urban commons: an increasingly important and highly contested arena on which we need to shine a spotlight. We examined the governance of lakes in Bangalore, identifying factors that can facilitate collective action and lead to ecological protection and recovery. This is an issue particularly close to my own heart, as my engagement with Bangalore's lakes began as a citizen and community member, not as a scholar! Lin and I spoke every Tuesday (morning for her, evening for me) for close to six years, and a topic of many of our weekly Tuesday conversations in the 2-3 years passing before her related to urban governance. I learnt much about her own emotional connection to the fresh water systems of Los Angeles where she did her PhD, and gained a fresh appreciation of the power of



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The view from my window - a wetland, with dumped debris visible at one corner

emotion in driving reasoned scholarship (rather than disengaging scholarship from emotion, as some schools of thought favor).

One critical factor that clearly emerged from our study of Bangalore's lakes was the need for dialogue between communities and city government, which is required for effective comanagement. Such dialogue seems to be particularly important to generate strong polycentric networks in high-growth urban contexts. These contexts are particularly prone to risk as they face political economic challenges of rent seeking and economic profit-making that can bias planning towards short term profit seeking, at the expense of long term sustainability. Fortunately, Bangalore seems to doing well in this regard, with a number of lake communities coming forward to reclaim derelict lakes in their neighborhood, supported by civic action in the form of Public Interest Litigations and an active judiciary that places pressure on city administration.

Such initiatives cannot be taken for granted, however, and are few and far between at the national level. Our only hope for scaling up such action is to provide education at a mass scale, interdisciplinary education that crosses boundaries, and encourages contestation and careful thinking, in the search for equitable

pathways towards greater sustainability. As a recipient of the Elinor Ostrom Senior Scholar award, I recognize with humility the privilege and responsibility reposed by this honor, coming in the name of one of the most unique and irreplaceable thinkers the world has had the privilege to know. Moving forward with my colleagues at my new academic home at Azim Premji University in Bangalore, we are engaged in the co-design of new, interdisciplinary educational initiatives for sustainability in the Indian context. Engaging with problems of sustainability in an equitable, fair and just manner will require the fresh perspectives brought by hundreds of young minds engaged in respectful contestation. Lin would have been the first to agree! I only wish she was here in person to share with us in the steps of this journey: but she is indeed, in spirit, in motivation, and in our common memories.

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Lin Ostrom: Up Close and Personal

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Lin Ostrom was known for her work on governance of the commons and her critique of markets and states. However, there are many lesser-known facets of Lin as a person and a friend. We had a special bond with Lin and Vincent Ostrom. We had the privilege of living and working with them for four years (2002-2006), including having weekly dinner, endless conversations as well as house and yard work with them. In this note, we share our experience with Lin up close and personal.

Lin as a person and friend

On top of our list of Lin as a person and a friend was her devotion to her husband Vincent. Vincent and Lin were intellectual soul mates, Vincent as the philosopher and Lin the theoretician and empiricist. They spent close to 40 years building the Workshop on Political Theory and Policy Analysis at Indiana University-Bloomington. Lin dedicated her 1990 book to Vincent "for his love and contestation", while Vincent dedicated his work to Lin. She took care of and cheered on Vincent, as he grew older, more sickly and frail. Bloomington Hospital had become Lin's third home, her second being the hotel. She often called Vincent to check on him whenever she was away to remind him of his medications. She would often rush home from her travels to make sure Vincent does not miss his medical appointments. On weekends during summer and fall, Lin and Vincent would usually stroll and watch the sunset.

The Ostroms were generous at heart. They supported graduate students and their families, including us, to study in the US. They donated their estate to the Tocqueville endowment fund to continue to support students and scholars visiting the Workshop. They even donated to our college trust fund. However, the Ostroms were personally frugal. Lin would sew Vincent's socks repeatedly before getting a new one. She had the same small, old travelling bag, blazers and pair of shoes for more than 10 years.

Lin and Vincent loved to bake turkey during Thanksgiving, inviting friends over and enjoying roasted marshmallows, corn and beer in their log cabin in the forested outskirts of Bloomington, Indiana. They would convert leftover turkey into a rich and creamy turkey-vegetable soup that would last for days. They both loved Chinese food (Sichuan and Cantonese) including fortune cookies. Their idea of celebration – including celebrating birthdays and graduation for a PhD advisee - was going to their favorite Chinese restaurant on the East side of town.

Lin loved plants and gardening. Cactus, tangerine plants and pine trees were among her favorites. She disliked chemicals and would rather pick, with her bare hands, stubborn weeds in between cobblestones in their driveway. She would prepare compost materials from kitchen refuse. Watering plants was her weekend therapy as was the thread mill. She loved birds, particularly woodpeckers and hummingbirds, which would regularly pay a visit to their wellstocked bird tray hanging by a maple tree overlooking their dining hall. They also had two cats at one time.

Lin was a highly disciplined scholar. Her day started at 4am and ended at 10pm. She would occasionally watch news (Jim Lehrer Show) with



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Eduardo Araral, Elinor Ostrom Awardee

Vincent after a long day. She has numerous writing projects, reviews and proposals to finish, three research centers to co-manage, numerous PhDs to advice, a course to teach and dozens of weekly emails to respond to.

Her discipline was evident in her travels. Lin was a tireless globetrotter and a much sought after speaker, possibly clocking the most mileage by a social scientist. Her travel calendar was usually already full the year before. She visited us in Singapore a few months after winning the Nobel Prize, landing at the airport at 6 in the morning after a 20-hour direct flight from New York. By 9am, she was already visiting the Lee Kuan Yew School of Public Policy for a packed schedule meetings, seminars, public lectures and late night dinners. Three days later, she was off to two other countries and back in Bloomington over the weekend. On the plane, she is finishing her article for the 100th year anniversary edition of the American Economic Review. This was a normal itinerary for Lin at 75 years old.

Lin and Vincent loved native art, which they eventually donated to a museum in Arizona. They liked American Indian, Chinese and African paintings, carvings, prints, accessories and cloths. Lin collected (on Vincent's influence) gemstones and ethnic jewelry, some of which she gave away to us, including a figurine from Japan from World War II. Lin and Vincent were both craftsmen, in the literal and figurative sense of the term. They literally designed and helped build their house and furniture, including their dining table and chairs out of the maple trees in their woodlot. They also built their log cabin in Manitoulin Island in Canada off the coast of Lake Michigan, a two-day drive from Bloomington. There was no electricity or running water in the cabin. In this isolation, Lin would finish her projects. They did this for almost 40 years.

Finally, but most importantly, Lin was a warm friend with a cheerful spirit. She signed off her emails with "cheers" and greeted everyone with a hearty hello. She treasured her friends. She kept three shoeboxes full of birthday and Christmas cards from friends and students all around the world. My daughter's school artwork – a wire sculpture – was kept in their dining hall along with other personal artwork from friends.

She had a keen sense of humor, optimism, infectious enthusiasm and indomitable spirit. Lin soldiered on with what she loved to do. Three months before she passed away, weakened by chemotherapy and the ravages of cancer, she made sure she commented on a paper we are working on and gave encouragement for it to be finished. Lin had also her soft spot. When we finally left Bloomington in June 2006, the Ostroms bade us with a teary farewell and a heavy heart. This was the Lin Ostrom we knew, up close and personal.

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* This is an abridged version of a tribute paper to be published in *Environmental Science and Policy*



The Importance of the Commons Perspective

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One interpretation of social science is that it is the study of animal behavior, where the animal happens to be the same as the scientists studying it. Many social scientists are interested in human behavior because humans have a disproportionately large effect on the state of the natural environment, much of which can be accurately labeled as a commons.

By "commons" I mean anything that creates a collective-action problem, this being а divergence between public and private interests. While there are other conceptions of the commons, I think this very basic definition captures why the commons is such а foundational concept. To begin, it makes the concept of the commons as general as collectiveaction, which itself is quite general. As David Sloan Wilson from Binghamton University has convinced me, collective-action problems do not only occur between humans, but between social agents at numerous levels of social and biological organization. While the language used may be different across such levels, the dynamics of producing and maintaining collective benefits in the face of socially counter-productive incentives is quite general. This is shown by, among other things, the recent popularity in the study of bacterial quorum sensing as an example of microbial collective-action.

From this perspective, I think that some of the distinctions made between what is labeled social science and a range of more "natural" sciences are usefully seen as artificial, which is why I earlier described social science as the study of animal behavior. I say usefully because, as E.O. Wilson has exhorted us, we can do better science when our theories are consilient across realms of observation. We uncontroversially

prefer parsimonious theories with high explanatory power. If we do not consider the application of a theory across disciplines and across scales, then we may under-leverage the real utility of that theory. And I think we have every reason to expect that theories developed to explain collective-action outcomes among one set of agents would be applicable to agents at distinct levels of biological organization.

Furthermore, I think this comparison between humans and other biological agents is useful as a buffer against arguments for either hypercontextualizing or entirely de-contextualizing human behavior. The first perspective argues that, through their ability to create and sustain culture, humans have somehow transcended biology and the "standard rules", whatever they are, do not apply. Conversely, others insist on universally conceiving humans as uber-rational automatons that endlessly strive to maximize utility regardless of their context, an assumption that has convenient implications for our ability to mathematically formalize human behavior. Needless to say, such formalizations do not preserve the context of human decision-making all that well.

Emphasizing the concept of the commons and the collective-action problems it generates may support a middle-ground between these two The ubiquity perspectives. of commons dilemmas presents a challenge to both the perspectives just mentioned: to the former because of the commonality across contexts that it implies, and the latter because it means that such things as externalities and market failures, which are close to synonymous with collectiveaction problems, are not exceptions to an otherwise perfectly competitive market comprised of mathematically rational robots.



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Michael Cox at the 2013 IASC Global Conference

They are in fact the rule. A great contribution that Elinor Ostrom made was to rescue us from the conclusion this observation might lead us to: that cooperation is impossible among social groups. Through her efforts she helped to preserve a critical middle-ground where we understand that collective-action problems are inevitable, but many times they are not beyond the abilities of social agents to resolve. Cooperation is as much a feature of social life as competition is, and it is up to us to try to rigorously sort out when one is favored over the other.

In addition to all of this, the concept of the commons is important for producing prescriptive knowledge, by which I mean knowledge that it enables us to make suggestions for how environmental problems might be ameliorated. I say this because I believe that collective-action problems associated with the commons are at the root of the great majority, if not all, of our environmental problems. Another way to state this is that the failure to resolve collective-action problems associated with the commons is the ultimate cause of many environmental problems. To again borrow some insight from David Sloan Wilson, ultimate causes can be accomplished by one of many more proximate mechanisms. It is these proximate mechanisms I believe are at the center of academic research on the commons. Essentially, the ultimate cause of failed (or successful) collective-action becomes the starting point of an empirical search for the proximate mechanisms by which this more ultimate cause is accomplished.

An important question then, when trying to understand the causes of many to most environmental problems, is: what are the commons and their associated collective-action problems? Initial responses to this question are themselves characteristics and processes that can be further unpacked. For example, we know that cooperation is aided when transaction costs are kept low and monitoring and sanctioning processes are in place. But there is a range of conditions under which these features could themselves be accomplished, which leads us to subsequent questions. Such a process of unpacking could be characterized as a diagnostic analvsis of environmental problems. Bv diagnostic I mean the process of asking a roughly ordered set of questions to unpack the complexity of a case and uncover the causes behind an outcome observed in that case. The language of diagnostic analysis in environmental problems has been most extensively developed by Oran Young, and was later adapted by Ostrom in her development of a social-ecological systems framework. For Young, the process was aimed at finding mid-range theories that explain outcomes in well-defined subsets or types of opposed to universal laws or cases. as idiosyncratic observations.

To conclude, the concept of the commons can help orient environmental researchers both with respect to a range of disciplines that are addressing surprisingly similar phenomena, as well as with respect to a particular environmental problem or case. It enables scholars to address such cases in a consistent way by serving as the starting point for developing mid-range theories that explain successes or failures of collectiveaction. It is a foundational concept for those trying to understand environmental problems specifically, but also a range of dynamics that produce socially detrimental outcomes for a set of agents.

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Championing the Commons

Kate Ashbrook

General Secretary The Open Spaces Society, United Kingdom

Commons—whether water, land, air or knowledge—are a shared resource. Theft of the commons is a form of inclosure*. The Open Spaces Society has been campaigning for the commons and against inclosure for the last 150 years. Founded in 1865 as the Commons Preservation Society it is the oldest national conservation body in Britain.

Commons in England and Wales are defined in law. All commons have an owner, but others have rights there too, of grazing, or collecting wood for instance, in connection with their landholding. In the past, most commoners were dependent on the common's resources for their survival. Now, many commons fulfill a different, or additional, purpose, of providing recreational enjoyment, as the public has the right to walk on all of them and to ride on many. Commons are recorded on registers, with maps and lists of owners and right-holders.

The Open Spaces Society's campaign for the commons has focused on collective action and influencing decision-makers, by gathering evidence of the importance and value of commons and galvanizing support for the cause. These methods are relevant whatever the cause, and this is why the society believes that the International Association for the Study of the Commons should embrace practitioners together with academics. We are symbiotic in the campaign for the commons.

The theft of the commons

Once, much of England and Wales was common land. During the parliamentary inclosure movement of the eighteenth and nineteenth



The Open Spaces Society

centuries, landowners seized the commons. There were bitter battles which the peasants fought with pitchforks and other farm implements as weapons. Landowners ploughed and tilled and inclosed the commons with fastgrowing hedges. Now we have only a remnant of the former commons, a mere 1,200 square miles. However, what remains is immensely valuable and rich in public interest.

Our commons cover a wide range of habitats from mountains and moorlands to forests and woods, heaths and seashores. They come in all shapes and sizes. They have remained undisturbed through history, so they are rich in animal and plantlife and archaeological remains, they provide unspoilt landscapes and places for informal public recreation. In the uplands, in the north and west of England and Wales, they are still crucial to the farmers' livelihoods, providing essential grazing for livestock.

The Commons Preservation Society was founded just at the end of the inclosures, when the commons began to be taken for development.



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Kate Ashbrook, The Open Spaces Society

The society backed the common right-holders and the public in saving Hampstead Heath, Wimbledon Common and Epping Forest in and around London, and many other commons further afield. It commissioned a trainload of tough men in 1866 to march from Tring Station to Berkhamsted Common in Hertfordshire and pull down the two miles of five-foot-high iron railings unlawfully erected by Lord Brownlow. Thus the society restored the common to the people (it now belongs to the National Trust, a charity which was founded by members of the Commons Preservation Society in 1895).

Registration and protection of commons

At that time there was no record of the commons, and they were at risk. The society campaigned for all commons to be registered, but it was not until the Commons Registration Act 1965 that this was done. The Act provided a far-too-short three years in which all commons had to be registered. Many were omitted and it was then too late to record them, so they have been lost. These registers are inaccurate and out of date. Much more recently, the Commons Act 2006 provides for a limited correction of the registers. However, seven years on, that part of the Act has only been implemented in seven English counties. We urgently need it to be fully in force so that we can restore omitted land to the registers and win a public right of access there.

Commons have some legal protection. For instance, a landowner must obtain the consent of the environment ministers in England or Wales before erecting any works on a common, and the minister will take account of the public interest in determining the application. Even so, commons are being eroded by unlawful development and by neighbors filching bits into their gardens. The Open Spaces Society is campaigning for local authorities to have a duty to deal with encroachments as, at present, no one takes any action.

There are many traditions associated with commons. One is the beating of the bounds on Rogation Sunday (the fifth Sunday after Easter) when local people would walk around the common and tap the boundary stones with sticks (or turn the children upside down and bump their heads on them). Communities should revive this tradition, to remind themselves of the boundaries and to have an early warning of unlawful encroachments.

Changing times

Lifestyles have changed and far fewer people turn out stock on their local common. Many of the houses with common rights are owned by people with no interest in grazing. This lack of grazing means that commons can get lost under a sea of scrub, which is detrimental to the biodiversity, landscape and public enjoyment.

Or a conservation group may take over the management of the common and want to introduce livestock, but is then faced with the risk of speeding traffic on roads across the common. This leads to calls for fencing.

The Open Spaces Society often objects to applications for fences, for they create physical and psychological barriers and can be an eyesore. And fences symbolise those past struggles between the oppressed local people and powerful outside interests—they are the first stage in divorcing the commons from their communities. It is far better to slow the traffic.



Open Space



The *Open Space* Newsletter, The Open Spaces Society

Ideally, there would be an enforced 40-milesper-hour speed limit on all unfenced roads across common land, so that people know that commons are special; you slow down for commons. This already exists on Dartmoor in South West England and in Ashdown Forest and the New Forest in South East England.

Because commons are a shared resource, everyone with an interest in them should be involved in deciding their future. Communities should be central to plans for managing the commons. Local people know their common, they are watchdogs. Managers of commons need to consult and involve the community in their ideas for the common. Two booklets, the multi-agency A Common Purpose and the Open Spaces Society's Finding Common Ground, will help them with this. For commons with an agricultural interest, the Foundation for Common Land (a gathering of those across Great Britain with a stake in pastoral commons) has much expertise to offer.

Exploitation

Here in England and Wales the devastating inclosure period is ingrained in our memory, and

while we still face threats to the commons these do not compare with the gravity of the inclosures. However, many nations are facing now the ravaging of their commons which we endured 250 years ago. Their public land is being exploited by governments, industry, developers and landowners, and the dependent communities dispossessed.

We all have much to learn from our leader and mentor, the late Elinor Ostrom. She believed in the power of collective action, listened to all the arguments, gathered sound evidence and championed the cause. We take up her torch in our battle for that unique, invaluable, shared resource—our commons.

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* inclosure is a formal term meaning that it has been enclosed by an Act of Parliament





Perspectives

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he Environmental and Social Studies Group (Grupo de Estudios Ambientales y Sociales A.C. GEA) is a non-profit "research-action" institution working in central Mexico to promote local access to safe water and food, train communities in sustainable land management, and support the conservation and sustainable use of biodiversity and agrobiodiversity in rural Mexico. Founded in 1977, GEA is among the oldest grassroots environmental organizations in Mexico. The initiative works with a network of researchers, community groups, and local civil society organizations to leverage both technical expertise and traditional knowledge in service of environmental conservation. The full and active participation of local communities is prioritized, as is a governance structure that ensures inclusive decision-making and the adherence to democratic principles.

guiding objectives of GEA are: The (1)consolidating participatory local approaches for the sustainable management of ecosystems, agro-ecosystems and food systems, all within a watershed approach; (2) channelling the energy of civil society to promote ecosystem health, food and water security, and biodiversity conservation through the development of policies incorporate co-management that and sustainability; (3) strengthening participatory processes and direct democracy by working with and through community organizations; (4) practices that favour harmony promoting between people, society, and nature; and (5) ensuring the long-term internal strengthening of GEA itself.

Within GEA, projects are organized under four programs:



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1. Farmer Management of Natural Resources (Programa de Manejo Campesino de Recursos Naturales, or MACARENA);

2. Sustainable Food Systems (Sistemas Alimentarios Sustentables, or SAS);

3. Participatory Management and Sustainability (Gestión Participativa hacia la Sustentabilid;

4. and GEAVIDEO, a cross-cutting program that comprises the use of audio-visual and multimedia technologies to communicate messages on GEA's work.

The GEA approach combines study and research with community based, demand-driven projects. The group serves as a repository for knowledge across its work areas and as a centre for local action. The organization currently works with over 20 different partners and collaborators, while also maintaining a library of over 150 publications that are based on knowledge and lessons generated from GEA projects. And while



the organization is a pioneering example of effectively bridging dialogue between traditional and scientific knowledge, it primarily works with and for rural communities, throughout its history it has included chinamperos - farmers that grow crops on artificial islands on what remains of Lake Xochimilco - forest communities in Sierra Norte de Puebla, and other community-based initiatives throughout Oaxaca and Guerrero. Currently it carries out the Project for Sustainable Farmer Management of Natural Resources and Agrofood systems in Guerrero. This is a regional program incorporating more over a 1,416-square than 30 communities kilometre area in the Balsas River Basin, spread across the municipalities of Mártir de Cuilapán, Ahuacuotzingo, Zitlala and Chilapa de Álvarez.

Themes within the project are:

1. Forest and biodiversity management, through the establishment of forest reserves and community herbaria, reforestation efforts, and the sustainable management of non-timber forest products.

2. Water management, aimed at improving water quality in watersheds and other ecosystems through democratizing water access and distribution, and planning and implementing the restoration and conservation of watersheds, natural springs, and degraded lands.

3. Sustainable agriculture, with an emphasis on agro-biodiversity, native seed selection and conservation, biological control of pests, and eco-agriculture approaches to food security.

4. Livestock management, with a focus on water for cattle, nutrition alternatives, planning grazing routes, and managing the balance between cattle and forest needs.

5. Household-scale environment and development projects, including water and sanitation, water filtration, the provision of fuel-efficient stoves, cultivation of vegetable gardens, and harvesting medicinal and comestible plants.

6. Water and sanitation services for local schools to ensure quality, quantity and continuity of safe water for local youth, as well as education and awareness-raising on the links between environmental health and human health.

7. Education, art and local identity programming, through the use of school festivals and workshops, radio, theatre, video and other activities.

Some impacts

The Project has been highly successful at catalysing local projects for environmental conservation and regeneration that also serve to improve local wellbeing and create new sources of income for the local population. In total, the organization has started and overseen more than 2,000 soil and water conservation projects. Ecosystems and natural resources are the of cornerstone the local economy, SO interventions to protect and restore the environment are tantamount to investments in local economic prosperity. At the same time, the communities that GEA serves rural are dependent on healthy, properly functioning ecosystems for their own health and wellbeing. Investments in environmental stewardship have also been investments in community health, therefore.

GEA has helped to secure a supply of clean rural drinking water for different ten communities. The organization has also made investments in local infrastructure to separate water for human consumption and that for livestock use: an important step in sanitation and public health. GEA has also prioritized water and sanitation services in local schools, constructing sanitary facilities in 27 different schoolhouses. These interventions are significantly reducing the concentration of sewage in rivers and aquifers, thereby improving the health of communities by reducing incidence of waterborne diseases. GEA water and sanitation projects are complemented by education, awareness-raising and outreach



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issues, efforts on hygiene again building from the younger generation awareness upwards. Water quality has also been improved by the collective move towards ecoagriculture, which is reducing pollution of groundwater and agrichemicals. waterways by GEA land management activities have resulted in а marked increase in the flow of rivers and springs. In certain cases, some springs that were previously dry have been regenerated. The increased availability of water locally has had a profound impact on the instigation of new livelihood activities such as fruit orchards and vegetable gardens, which have also had positive implications for food security and nutrition. GEA also works with eight women's groups, providing training in the canning and drying of local foods, the reintroduction of native crops, and organic farming. These activities too have had a positive impact on local food security and household nutrition.

A number of GEA projects have a construction dimension, requiring substantial inputs of local labour. This has created a number of local employment opportunities, generating more than 1,000 short-term jobs to date. In the longer term, alternative livelihood activities and training are helping the local population develop sustainable sources of income that do not damage the forests. A good illustration of this phenomenon is the GEA sustainable production of maguey project.

The community-based approach used by GEA strengthens local capacity and local institutions by involving the entire community in planning and decision-making around projects. Interventions in rural communities have always been based on demand, while the group has been careful to only proceed with projects that have the backing of community assemblies. This approach has furnished communities with a real sense of ownership over their initiatives, and ensures that local knowledge is incorporated into design. Relationships project between communities have also been strengthened through inter-community agreements for the collective management of watersheds.

Policy impacts

Although the management of natural resources in rural Mexico falls largely to small-scale landholders, local communities and indigenous peoples, their traditional knowledge systems and resource management techniques are often invisible to policy makers. A stated aim of GEA is to demonstrate the environmental, social and economic benefits that are possible from harmonizing official government policies and regulations with the traditional practices of local communities. To date, the association has worked in this regard, specifically around the management of water resources, local palm (Brahea dulcis), and maguey (Agave). Among other issues helping to stop the branding of the term Agave for the exclusive use of tequila, mezcal and bacanora registered producers.

A very important effort has been made from GEA to inform of the environmental and health risks related to the introduction of GMO corn into our country. Together with a group of allies, GEA has done a great deal of lobbying to create laws that consider those risks and to stop permission for the commercial planting of GMO's.

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The Work and Vision of the Foundation for Ecological Security

Jagdeesh Rao

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• oundation for Ecological Security (FES) was set up in 2001 to reinforce the massive and critical task of ecological restoration in India. The Foundation strives for a future that is based on holistic understanding of the principles that govern the interrelationship of various life forms and natural systems.

FES works in six eco-regions of the country, reaching 3.8 million people from more than 6,686 village institutions across 28 districts in nine states (Andhra Pradesh, Gujarat, Himachal Pradesh, Karnataka, Madhya Pradesh, Orissa, Maharashtra, Rajasthan, and Nagaland). The efforts have resulted in improved management and governance of over 1.83 million acres of common lands which, in turn, has improved the productivity of an equal amount of the adjacent privately-owned lands, together resulting in better incomes from agriculture, livestock production and sale of forest produce.

Acknowledging its efforts in assisting village communities in sustainable management of Common lands in India, FES was awarded the Times of India Social Impact Award – 2012 (Best NGO in the Environment Category). Close on its heels, FES also received the Elinor Ostrom International Award on Collective Governance of the Commons – 2013 (First place in Practitioners Category) and the 2013 Land for Life Award, instituted by the UNCCD (United Nations Convention to Combat Desertification).

The following essay is a summary based upon an interview from a film commissioned by UNCCD to showcase the efforts of FES. In this film, FES' Executive Director, Mr. Jagdeesh Rao, explains



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elements of FES' work and how important it is today.

The Three Cornerstones

In a world which is increasingly dominated by economic priorities, we at FES believe that human society is a part of a larger ecological whole, a larger ecological planet. We are just one of the various living forms. And of our ways of living, of human society's ways of living, economic priorities are just one set of priorities. We have other goals by which we lead happy lives. With this worldview in mind, there are three cornerstones on which FES' activities rest:

First and foremost is Ecological Restoration: We believe in the bio-physical infrastructure as the true infrastructure for rural economies. By that I mean soil, water, moisture, nutrients, biodiversity – this is fundamental for farming to survive, for resilience of farming and farm economies.

The second important aspect is the Social Infrastructure – which is collective action, the ways in which rural societies interact with one another, with families and kind of bonds they build amongst each other and rules and regulations which govern their lives. These are



important platforms on which their lifestyles are determined: we therefore build our action on the social infrastructure within a village, essentially the collective action within a village.

The third dimension is a Tilt Towards the Poor: so that we enable better economic opportunities for the poor within the ecological thresholds.

So we have ecological restoration, local governance based on social infrastructure, and economic opportunity for the rural poor, as the three cornerstones of our Foundation.

The Founding of FES

FES was born out of rich experience from a project which was designed around the Tree Growers' Cooperative Project, a project formed around nature and human beings. We realised from implementing such a large-scale project across India that however simple tree-growing might sound, it is deeply connected to the political economy of land, water, organisation, and economic capital. The structures that we introduced in villages, and enabling laws and policies that we actually take to villages, could either strengthen their lives, or act in ways which might be divisive, excluding the poor and maybe reinforcing the status quo of power structures. We found in our experience that cooperatives, though they are wonderful forms of collective when working with common pool action, resources, they could in some cases be detrimental or incompatible with rural life.

We also realised that the trees were symbol of ecosystems and that people were really talking about restoring their water bodies, restoring their pastures, restoring their forests, grasses, shrubs ... and not only trees. So we moved away from just trees into looking at issues concerning ecosystems on the whole, the integrity of ecosystems like hydrological regimes, nutrient regimes, biodiversity. And that is how our Foundation for Ecological Security came into the picture.

Commons: Changes and Challenges in India

Uniquely, between the extremes of the State on one side and individualism on the other, FES looks at Commons as a way of ecological Common governance. By definition, Pool Resources (CPR) are open-access resources where it is difficult make a list of recognised users and exclude other potential beneficiaries. A twin definition is of Common Property Regimes which are the social arrangements (such as social regulations and rules, rewards and punishments) to govern Common Pool Resources for collective use.

The Commons are estimated to make up 15-30% of India's land mass so we are talking about something like 45-60 million acres of land – almost equal to the size of Kenya. It was also estimated in recent studies (2010), that the extent of dependence on Commons was as high as 80-90%, with rural India depending on Commons for things like firewood, fodder, water, food, and medicine. Access to these Commons remains critical for daily life today. With a burgeoning population of 1.2 billion people in India, and an equal amount of livestock, this land is critical for citizens' basic survival, and for production of food.

But the challenges that these lands face are many. Firstly, these lands are over- used due to unregulated grazing encroachment. Popular drives of distributing titles over lands also results in common pool resources being divided into individual properties, and shift of land use to urban sprawls, economic activities, industrial zones, and special economic zones (SEZ).

One of the foremost challenges is that Commons are being titled as wastelands because in public perception, and in policy thinking, wastelands are neither productive nor useful for local people, whereas in reality, they are the backbone of the rural economy. This perception needs to be changed and that is where our efforts are concentrated.



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Jagdeesh Rao and Elinor Ostrom during the 2011 IASC Global Conference in Hyderabad

Yet another challenge, at a higher level, is the mindset in the wider world that local people cannot manage their own resources and that you need government to manage things for local people. Whereas recent scientific understanding and centuries of wisdom gives us ample evidence that people can actually take care of their lives and manage pastures, forests, water systems; there is irrigation tremendous management-related traditional knowledge latent in many societies across the world. However, development planners assume that governments are needed to manage these. So we need to investigate what type of systems can be better managed by local communities and what type of systems can be better managed by big governments. We also believe that both are necessary but it is not necessary to mix their roles.

A third hurdle the Commons face is improper or lack of tenure. More often than not tenure arrangements benefit those who are betterplaced, owing to their customary use practices, proximity to resources, and ability to exercise peer control. Even where local communities use and manage the lands, it is informally, without the backing of the country's laws. How to align the informal arrangements worked out within small village communities with the formal laws of the nation is another formidable challenge.

The fourth is a challenge which is not necessarily restricted to Commons, but is about

ecosystems: the way ecosystems are viewed in a larger world view which sees soil and water as externalities whereas in fact, they are the basic fuels for the engines of growth. Without these, it is not possible to have growth at all. Unfortunately, certain dominant thoughts have viewed environment and water as externalities. So our work around Commons is basically to work with these externalities and make them very integral to ways of thinking about growth.

Putting Nature Back into Natural Resource Management

Regrettably, when one talks about natural resource management in India, hardly anyone looks at nature. So FES stresses the part of nature in natural resource management. By that we mean posing questions like: Do our plans on which thousands of millions are being spent suit the hydro-geology of the area? Or do they improve the functioning of ecosystems like pollination, and pest control? These are some of the strategies to put nature back into natural resource management that is unique to FES.

Pursuing Collective Action

In pursuing collective action, probably the most structurally-useful intervention we have made is in making universal membership a defining feature of our work. When you usually go to villages and start including people or asking them to join collectives, more often the poor and women are left out by that definition of inclusion.

Whereas what we did in villages was to make it a unique universal franchise so that anyone who is a resident of a village and above the age of 18, is automatically a member in the decision-making. Thus we have democratised the space and included women without leaving it to the sole choice of men. Also, some rural forums might not be very conducive for women to speak their mind. So we work to create special forums which are friendlier to them and ensure that their voices are heard.



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Our efforts also involved looking at mechanisms and instruments that come into play in selling produce outside and away from villages so that women get deprived of basic fodder and firewood. You cannot imagine women buying fodder or firewood six months in advance in a country like India. Again, it is usually the men of the village who come together and make money involving on а project the sale and merchandising of timber. Now consider that if same programme is tilted towards the subsistence, where you don't talk about trees but about shrubs and a variety of plants, then the project will benefit women and give them a role to play. So basically, we have worked on issues like merchandising, so that the kind of mechanisms which are detrimental to women are done away with.

The FES Dream

There are 40-50 million acres of commons lands in India, on which around seven to eight billion dollars are spent annually. It is time we wake up and have institutional investments alongside these financial investments. By institutional investment what we mean is secure tenure, clear access and benefit rules, and devolution of powers and responsibilities to local institutions like a Panchayat or a fourth-tier village institution. That is what we are working towards.

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Recent Publications

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BOOKS

Chang, Y. 2013. *Private Property and Takings Compensation: Theoretical Framework and Empirical Analysis.* Northampton, MA: Edward Elgar.

Hirokawa, K.H. 2014. *Environmental Law and Contrasting Ideas of Nature: A Constructivist Approach*. New York: Cambridge University Press.

Holden, S., K. Otsuka, and K. Deininger. 2013. Land Tenure Reforms, Poverty and Natural Resource Management: Conceptual Framework. Palgrave Macmillan. **Jones**, P.J.S. 2014. *Governing Marine Protected Areas: Resilience through Diversity*. New York: Routledge.

Mori, A., ed. 2013. *Environmental Governance for Sustainable Development: East Asian Perspectives*. New York: United Nations University Press.

Porter, C.R. 2014. *Sharing the Common Pool: Water Rights in the Everyday Lives of Texans*. College Station: Texas A&M University Press.

Roark, E. 2013. *Removing the Commons: A Locklean Left-Libertarian Approach to the Just Use and Appropriation of Natural Resources*. Plymouth, UK: Lexington Books.

Wall, D. 2014. *The Economics of Common Pool Property Rights: The Sustainable Economics of Elinor Ostrom*. New York: Routledge.



ARTICLES

Abdudayem, A., J. **Kieran**, and A. **Scott**. 2013. "Review of Agricultural Water Management Policies in Near East and North African Region in Light of Water Scarcity." *African Journal of Economic and Sustainable Development* 2(2):122-138.

Acedo, C. and A. **Gomila**. 2013. "Confianza Cooperación: Una Perspectiva Evolutiva." *Revista Internacional de Filosofía* 18:1136-9922.

Agyenim, J.B. and J. **Gupta**. 2013. "Water Management in Ghana: Between the Idea and the Implementation." *Journal of Natural Resources Policy Research* 5(1):35-48.

Alford, J. 2014. "The Multiple Facets of Co-Production: Building on the Work of Elinor Ostrom." *Public Management Review*.

Annisa, R. 2013. "An Economic Analysis of Ecosystem Restoration Concession Policy in Indonesia: A New Strategy for Sustainable Forest Management?" *International Journal of Green Economics* 7(1):56-70.

Arkcoll, K., et al. 2013. "Funding Common Property Expenditure in Multi-Owned Housing Schemes." *Property Management* 31(4):282-296.

Bark, R.H., et al. 2013. "Understanding the Sources of Uncertainty to Reduce the Risks of Undesirable Outcomes in Large-Scale Freshwater Ecosystem Restoration Projects: An Example from the Murray-Darling Basin, Australia." *Environmental Science & Policy* 33:97-108.

Basurto, X., S. **Gelcich**, and E. **Ostrom**. 2013. "The Social-Ecological System Framework as a Knowledge Classificatory System for Benthic Small-Scale Fisheries." *Global Environmental Change* 23(6):1366-1380. **Bensch**, G. and J. **Peters**. 2013. "Alleviating Deforestation Pressures? Impacts of Improved Stove Dissemination on Charcoal Consumption in Urban Senegal." *Land Economics* 89(4):676-698.

Bieling, C., T. **Plieninger**, and H. **Schaich**. 2013. "Patterns and Causes of Land Change: Empirical Results and Conceptual Considerations Derived from a Case Study in the Swabian Alb, Germany." *Land Use Policy* 35:192-203.

Blythe, J.L. 2013. "Social-Ecological Analysis of Integrated Agriculture-Aquaculture Systems in Dedza, Malawi." *Environment, Development and Sustainability* 15(4):1143-1155.

Blore, M.L., M. **Mkhulisi**, and G. **Cundill**. 2013. "Towards Measuring the Transaction Costs of Co-Management in Mkambati Nature Preserve, Eastern Cape, South Africa." *Journal of Environmental Management* 129:444-455.

Bohensky, E.L., J.R.A. **Butler**, and J. **Davies**. 2013. "Integrating Indigenous Ecological Knowledge and Science in Natural Resource Management: Perspectives from Australia." *Ecology and Society* 18(3). http://hdl.handle.net/10535/9137

Brummett, R.E., M.C.M. **Beveridge**, and I.G. **Cowx**. 2013. "Functional Aquatic Ecosystems, Inland Fisheries and the Millennium Development Goals." *Fish and Fisheries* 14(3):312-324.

Bulkeley, H. and T. Rafael. 2013.

"Understanding Urban Vulnerability, Adaptation and Resilience in the Context of Climate Change." *Local Environment* 18(6):646-662.

Cárcamo, P.F., R. **Garay-Flühmann**, and C.F. **Gaymer**. 2013. "Opportunities and Constraints of the Institutional Framework for the Implementation of Ecosystem-Based Management: The Case of the Chilean Coast." *Ocean & Coastal Management* 84:193-203.



Carter, D.P. and C.M. **Weible**. 2013. "Assessing Rule Compliance and Robustness in Recreational Resource Management." *Journal of Environmental Policy & Planning*

Davenport, M.A. and E. **Seekamp**. 2013. "A Multilevel Community Capacity Model for Sustainable Watershed Management." *Society and Natural Resources: An International Journal* 26(9):1101-1111.

Davidson, J.L., et al. 2013. "Toward Operationalizing Resilience Concepts in Australian Marine Sectors Coping with Climate Change." *Ecology and Society* 18(3). http://hdl.handle.net/10535/9141

Di **Falco**, S. and M. **Veronesi**. 2013. "How Can African Agriculture Adapt to Climate Change? A Counterfactual Analysis from Ethiopia." *Land Economics* 89(4):743-766.

Dijkstra, J. and M.A.L.M. **van Assen**. 2013. "Network Public Goods with Asymmetric Information about Cooperation Preferences and Network Degree." *Social Networks* 35(4):573-582.

Dono, G., R. et al. 2013. "An Integrated Assessment of the Impacts of Changing Climate Variability on Agricultural Productivity and Profitability in an Irrigated Mediterranean Catchment." *Water Resources Management* 27(10):3607-3622.

Farreny, R., et al. 2013. "Indicators for Commercial Urban Water Management: The Cases of Retail Parks in Spain and Brazil." *Urban Water Journal* 10(4):281-290.

Foster, T. 2013. "Predictors of Sustainability for Community-Managed Handpumps in Sub-Saharan Africa: Evidence from Liberia, Sierra Leone, and Uganda." *Environmental Science and Technology* 47(21):12037-12046. **Foundjem-Tita**, D., et al. 2013. "A Tale of Transaction Costs and Forest Law Compliance: Trade Permits for Non Timber Forest Products in Cameroon." *Forest Policy and Economics* 38:132-142.

de Fraiture, C. and G.N. **Kouali**. 2013. "Pirates or Pioneers? Unplanned Irrigation around Small Reservoirs in Burkina Faso." *Agricultural Water Management* 131:212-220.

Gallaher, S., et al. 2013. "Adapting Water Policy Tools to New Issues: Lessons from Colorado's Experience Over Time." *Water Policy* 15(1):43-60.

Gelcich, S., et al. 2013. "Exploring External Validity of Common Pool Resource Experiments: Insights from Artisanal Benthic Fisheries in Chile." *Ecology and Society* 18(3). http://hdl.handle.net/10535/9111

Habib, H., et al. 2013. "Jumpstarting Post-Conflict Strategic Water Resources Protection from a Changing Global Perspective: Gaps and Prospects in Afghanistan." *Journal of Environmental Management* 129:244-259.

Hansen, W.D. and H.T. **Naughton**. 2013. "Social and Ecological Determinants of Land Clearing in the Brazilian Amazon: A Spatial Analysis." Land Economics 89(4):699-721.

Henareh Khalyani, A., et al. 2013. "Deforestation and Landscape Structure Changes Related to Socioeconomic Dynamics and Climate Change in Zagros Forests." *Journal of Land Use Science* 8(3):321-340.

Huber, R., et al. 2013. "Sustainable Land-Use Practices in European Mountain Regions under Global Change: An Integrated Research Approach." *Ecology and Society* 18(3). http://hdl.handle.net/10535/9139

Iñiguez Gallardo, M.V., et al. 2013.



"Collaborative Community-Based Governance in a Transboundary Wetland System in the Ecuadorian Andes." *Mountain Research and Development* 33(3):269-279.

Janssen, M.A. and J.M. **Anderies**. 2013. "A Multi-Method Approach to Study Robustness of Social-Ecological Systems: The Case of Small-Scale Irrigation Systems." *Journal of Institutional Economics* 9(4):427-447.

Kamran, M.A. and G.P. **Shivakoti**. 2013. "Design Principles in Tribal and Settled Areas Spate Irrigation Management Institutions in Punjab, Pakistan." *Asia Pacific Viewpoint* 54(2):206-217.

Kang, H. and M.G. **Chung**. 2013. "A Review of Ecosystem Service Studies: Concept, Approach and Future Work in Korea." *Journal of Ecology and Environment* 36(1):1-9.

De Keyzer, M. 2013. "The Impact of Different Distributions of Power on Access Rights to the Common Wastelands: The Campine, Brecklands and Geest Compared." *Journal of Institutional Economics* 9(4):517-542.

Khalyani, J.H., et al. 2013. "Development and Evaluation of Local Communities Incentive Programs for Improving the Traditional Forest Management: A Case Study of Northern Zagros Forests, Iran." *Journal of Forestry Research*.

Kim, J.-W., K.-E. **Lee**, and Y.-J. **Kim**. 2013. "Regional Environmental Governance and Social Capital: A Case Study of Mangyeong River Communities." *Development and Society* 42(1):29-65.

Kostakis, V. and S. **Stavroulakis**. 2013. "The Parody of the Commons." *Triple C* 11(2):412-424.

Kurian, M. and T. **Dietz**. 2013. "Leadership on the Commons: Wealth Distribution, Co-Provision

and Service Delivery." *The Journal of Developmental Studies* 49(11):1532-1547.

López-Corona, O., et al. 2013. "Playing with Models and Optimization to Overcome the Tragedy of the Commons in Groundwater." *Complexity* 19(1):9-21.

Lubell, M. 2013. "Governing Institutional Complexity: The Ecology of Games Framework." *Policy Studies Journal* 41(3):537-559.

Luus, K.A., D.T. Robinson, and P.J. Deadman. 2013. "Representing Ecological Processes in Agent-Based Models of Land Use and Cover Change." *Journal of Land Use Science* 8(2):175-198.

Mburu, J., et al. 2013. "Magnitudes and Determinants of Transaction Costs in a Group-Based Livestock Breeding Approach: The Case of Dairy Goats in Eastern Kenya." *International Journal of Business and Social Science* 4(10):60-68.

McCay, B.J., et al. 2014. "Cooperatives, Concessions, and Co-Management on the Pacific Coast of Mexico." *Marine Policy* 44:49-59.

Mendoza-Carranza, M., W. **Arévalo-Frías**, and E. **Inda-Díaz**. 2013. "Common Pool Resources Dilemmas in Tropical Inland Small-Scale Fisheries." *Ocean and Coastal Management* 82:119-126.

Murtinho, F., et al. 2013. "Does External Funding Help Adaptation? Evidence from Community-Based Water Management in the Colombian Andes." *Environmental Management* 52(5):1103-1114.

Nikayin, F., M. De **Reuver**, and T. **Itälä**. 2013. "Collective Action for a Common Service Platform for Independent Living Services." *International Journal of Medical Informatics* 82(10):922-939.



Novák, J., V. **Pavlù**, and V. **Ludvíková**. 2013. "Reintroduction of Grazing Management After Deforestation of Formerly Abandoned Grasslands and Its Effect of Early Vegetation Changes in the Western Carpathians (Slovakia)." *Grass & Forage Science* 68(3):448-458.

Odozi, J.C., et al. 2013. "Economic Impact of Climate Change on Nigeria's Agriculture: A Conceptual Framework." *African Journal of Economic and Sustainable Development* 2(2):139-156.

Pacini, N., et al. 2013. "Water-Quality Management in a Vulnerable Large River: The Nile in Egypt." *International Journal of River Basin Management* 11(2):205-219.

Paneque-Gálvez, J., et al. 2013. "Land Tenure and Forest Cover Change: The Case of Southwestern Beni, Bolivian Amazon, 1986-2009." *Applied Geography* 43:113-126.

Pavelic, P., et al. 2013. "Smallholder Groundwater Irrigation in Sub-Sarahan Africa: Country-Level Estimates of Development Potential." *Water International* 38(4):392-407.

Pennington, M. 2013. "Elinor Ostrom and the Robust Political Economy of Common-Pool Resources." *Journal of Institutional Economics* 9(4):449-468.

Perez Rodriguez, V. and K.C. **Anderson**. 2013. "Terracing in the Mixteca Alta, Mexico: Cycles of Resilience of an Ancient Land-Use Strategy." *Human Ecology* 41(3):335-349.

Peringer, A., et al. 2013. "Past and Future Landscape Dynamics in Pasture-Woodlands of the Swiss Jura Mountains under Climate Change." *Ecology and Society* 18(3). http://hdl.handle.net/10535/9146

Ponting, J. and D. **O'Brien**. 2014. "Liberalizing Nirvana: An Analysis of the Consequences of

Common Pool Resource Deregulation for the Sustainability of Fiji's Surf Tourism Industry." *Journal of Sustainable Tourism*.

Quenault, B. 2013. "Dilemme Westphalien et Gouvernance Internationale des Biens Publics Mondiaux: Le Cas de la Protection du Climat." *Mondialisation et Soutenabilité Environnementale* 2(162):11-32.

Raghavan, M., K. **Jain**, and S.K. **Jha**. 2013. "Technology and Intellectual Property Strategy of a Firm: A View through the Common Theory Lens." *IIMB Management Review* 25(4):213-227.

Ramutsindela, M. and M. **Shabangu**. 2013. "Conditioned by Neoliberalism: A Reassessment of Land Claim Resolutions in the Kruger National Park." *Journal of Contemporary African Studies* 31(3):441-456.

Rantala, S. and L. **German**. 2013. "Exploring Village Governance Processes Behind Community-Based Forest Management: Legitimacy and Coercion in the Usambara Mountains of Tanzania." *International Forestry Review* 15(3):355-367.

Reyes-Garcia, V., et al. 2013. "Local Understandings of Conservation in Southeastern Mexico and Their Implications for Community-Based Conservation as an Alternative Paradigm." *Conservation Biology* 27(4):856-865.

Sjöstedt, M. and A. **Sundström**. 2013. "Overfishing in Southern Africa: A Comparative Account of Regime Effectiveness and National Capacities." *Journal of Policy Analysis: Research and Practice* 15(5):415-431.

Saldías, C., S. Speelman, and G. Van Huylenbroeck. 2013. "Access to Irrigation Water and Distribution of Water Rights in the Abanico Punata, Bolivia." *Society and Natural Resources* 26(9):1008-1021.



Sarmiento, C.S. and V.A. **Beard**. 2013. "Traversing the Border: Community-Based Planning and Transnational Migrants." *Journal of Planning and Education Research* 33(3):336-347.

Sevä, M. and S.C. **Jagers**. 2013. "Inspecting Environmental Management from Within: The Role of Street-Level Bureaucrats in Environmental Policy Implementation." *Journal of Environmental Management* 128:1060-1070.

Sherwood, A. 2013. "Community Adaptation to Climate Change: Exploring Drought and Poverty Traps in Gituamba Location, Kenya." *Journal of Natural Resources Policy Research* 5(2-3):141-161.

Slavikova, L. 2013. "From Cost-Benefit to Institutional Analysis in the Economics of the Environment." *Contemporary Economics* 7(2):67-75.

Sønvisen, S.A. 2013. "Recruitment to the Norwegian Fishing Fleet: Storylines, Paradoxes, and Pragmatism in Norwegian Fisheries and Recruitment Policy." *Maritime Studies* 12(8).

Sseguya, H., et al. 2013. "Determinants of Participation and Leadership in Food Security Groups in Southeast Uganda: Implications for Development Programs and Policies." *Journal of Rural and Community Development* 8(1):77-97.

Standal, D. and B. **Hersoug**. 2013. "Back to Square One? Fisheries Allocation under Pressure." *Marine Policy* 43:236-245.

Sterk, B., et al. 2013. "Five Years After; The Impact of a Participatory Technology Development Programme as Perceived by Smallholder Farmers in Benin and Ghana." *The Journal of Agricultural Education and Extension* 19(4):361-379.

Stringell, T.B., et al. 2013. "Marine Turtle

Harvest in a Mixed Small-Scale Fishery: Evidence for Revised Management Measures." *Ocean & Coastal Management* 82:34-42.

Sultana, P. and P. **Thompson**. 2010. "Local Institutions for Floodplain Management in Bangladesh and the Influence of Flood Action Plan." *Environmental Hazards* 9(1):26-42.

Taylor, P.L., P. **Cronkleton**, and D. **Barry**. 2013. "Learning in the Field: Using Community Self Studies to Strengthen Forest-Based Social Movements." *Sustainable Development* 21(4):209-223.

Trimble, M. and F. **Berkes**. 2013. "Participatory Research towards Co-Management: Lessons from Artisanal Fisheries in Coastal Uruguay." *Journal of Environmental Management* 128:768-778.

Tyler, M.E. and M.S. **Quinn**. 2013. "Identifying Social-Ecological Couplings for Regional Sustainability in a Rapidly Urbanizing Water-Limited Area of Western Canada." *Transactions of the Wessex Institute* 173:175-191.

La Valle, M.T. 2013. "Gestión de Bienes Comunes: Cooperación y Reciprocidad." *Logos* 23:39-52.

Velez, M.A. and M.C. **Lopez**. 2013. "Rules Compliance and Age: Experimental Evidence with Fishers from the Amazon River." *Ecology and Society* 18(3). http://hdl.handle.net/10535/9129

Villholth, K.G. 2013. "Groundwater Irrigation for Smallholders in Sub-Saharan Africa: A Synthesis of Current Knowledge to Guide Sustainable Outcomes." *Water International* 38(4):369-391.

Wang, J., et al. 2013. "Exploratory Analyses of Local Institutions for Climate Change Adaptation in the Mongolian Grasslands: An Agent-Based



Modeling Approach." *Global Environmental Change* 28(5):1266-1276.

Wunsch, J.S. 2013. "Analyzing Self-Organized Local Governance Initiatives: Are There Insights for Decentralization Reforms?" *Public Administration Review* 33(3):221-235.

Announcements

Send Letters and Announcements to Alyne Delaney, Editor, Commons Digest, Innovative Fisheries Management, Aalborg University, Skibbrogade 5, Aalborg 9000, Denmark. ad@ifm.aau.dk Tel: +45 99 40 36 94

Be part of the IASC!

IASC is itself a commons, and depends on its membership dues for many of the critical activities it undertakes. Become a member! https://membership.iasc-commons.org/

Suscribe to the newsletter! Tell a friend! The newsletter is the easiest way to receive all the news about the association Click here to sign up, or contact us at iasc@iasc-commons.org to post announcements - conferences, job positions, etc. - and reach the +3K members of our community: https://membership.iasc-

commons.org/civicrm/profile/create?gid=12&reset =1

ANNOUNCEMENTS

IASC deeply regrets the passing of Douglas Wilson

Dear colleagues and friends, members of the IASC,

With deep sorrow the International Association for the Study of the Commons regrets the passing of one of the founding members of the association.

Douglas Wilson, long time editor of the Journal of the Commons, Council Member and President Elect of the IASC died on December 18, 2013.

Doug cared deeply in the IASC and he invested much of his energy and professional life in our association. He strongly believed in the need and viability of a group of academics and practitioners working on the Commons. He recently showed the willingness to take up presidency in the near future.

May Doug rest in peace.

Deadline Extension - Elinor Ostrom Award on Collective Governance of the Commons -2014-2015 Edition

The Elinor Ostrom Award on Collective Governance of the Commons Council opens the call to members of the International Association for the Study of the Commons in good standing or of one of the Institutional Supporters of the Award to nominate outstanding scholars or practitioners in those fields to receive the Elinor Ostrom Award on Collective Governance of the Commons.



The Award will be given in three categories:

• Practitioners (recognizing the work around the creation, defense, sustainable management and use of common resources by groups, communities, and NGO or federations of communities).

• Young scholars involved in commons studies, committed to community-level management and pro-communities policies, with a middle term agenda on research, teaching and/or advising commoners.

• Senior scholars, also involved in commons studies and work with commons, communities and pro-commons policies. In this third case, we also propose to acknowledge commitment to and impact on training and/or advising new generations of commons scholars and practitioners.

In the three cases, awardees may be individuals or groups. There will be one winner in each category. In extraordinary cases, a joint first place for a particular category may be awarded.

The call for nominations will be opened until August 30th, 2014. More information on the Call for nominations, the Institutional Supporters, the Evaluation criteria and process and the Award may be found on the elinorostromaward.org website.

Contact: ostromaward@gmail.com

2015 Global IASC Conference "The Commons Amidst Complexity and Change" - Call for abstracts now open

The 2015 conference will focus on many kinds of common pool resources including fisheries, forests, and water resources as well as a host of emergent problems of social and environmental change. Participants in the conference will be invited to share ideas, evidence and practical solutions on questions of poverty, food security, social-ecological resilience, effective governance, human rights, indigenous knowledge, sustainable natural resource development and climate change.

Deadline for Panel and Group Presentation Abstracts - July 1, 2014 Deadline for Individual Presentation Abstracts - July 31, 2014

More information can be found on the Conference website: www.iasc2015.org

2014 2nd Thematic Conference on knowledge commons

On September 5-7, 2014, NYU's Engelberg Center on Innovation, Law and Policy will host the International Association for the Study of Commons' 2nd Thematic Conference on Knowledge Commons. The conference aims to provide a forum for presenting and discussing developments in the interdisciplinary study of knowledge commons. This year's program will devote several special paper tracks and policy sessions to knowledge commons in the fields of medicine and the environment. Keynote lectures will be given by Yochai Benkler (Harvard Law School), Eric von Hippel (MIT Sloan School of Management), and Michael McGinnis (Political Science, Indiana University, Bloomington).

Visit regularly the conference site for more information: IASCKC.NYUENGELBERG.ORG

2014 3rd European Regional IASC Meeting -From Generation to Generation: the use of commons in a changing society

The overall theme for this regional meeting is "From generation to generation - the use of commons in a changing society". Northern and



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indigenous commons are particularly emphasized. Across panels and kneynotes, the conference aims at contributing to the on-going development of theory and the methods concerning the commons.

Professor Ole Henrik Magga and Leticia Merino will be keynote speakers.

Visit regularly the conference website for more information: http://www.slu.se/iasc-europe2014

Workshop - Common People, Common Rules

Workshop 'Common People, Common Rules. Institutions and self-governance in historical perspective', to be held in Pamplona, 30-31 October 2014.

During our two-day workshop we will be focusing on institutions for collective action, that self-governing and self-regulating are in historical perspective. At the workshop much attention will be given to the historical analysis of common land regimes, which has witnessed a clear shift in focus from the study of the abolition of commons towards the analysis of the internal logic of their functioning. The workshop however also aims at attracting studies of the regulation of other types of self-governing institutions. In general, we aim at understanding how efficient and effective regulation can be developed, in a context of self-governing, collective institutions, both in rural and urban contexts. In such institutions, rules were designed and put into practice by the stakeholders themselves. Many questions however still remain unanswered:

• How did stakeholders make sure that the body of rules they designed remained effective, efficient and sufficiently simple for all to understand and apply?

• Were old rules replaced by entirely new ones, or were they simply adjusted to the new circumstances?

- Were rules always designed according to what the local users thought was needed, or were rules copied from other examples in the vicinity?
- How did rule-makers ensure that sanctions were avoided as much as possible?
- What level of sanctioning was sufficient to scare off potential free-riders?

These and related questions will be at the core of the meeting. Visit regularly the website http://www.collective-

action.info/_AGE_20141030_UPN-Pamplona for more information.

The new issue of the International Journal of the Commons is out

The Vol.8 N.1 of the International Journal of the Commons is available on line: https://www.thecommonsjournal.org/index.php/i jc

The International Journal of the Commons (IJC) is an initiative of the IASC.

Publishing in the International Journal of the Commons has many advantages for scholars and practitioners:

• The IJC has over 1,500 registered readers (note that registration is not required for accessing any website content!).

• Currently, the readership of the International Journal of the Commons has downloaded well over 100,000 full-text versions of the articles.



• It is not uncommon for popular articles to quickly get downloaded 1,000 times or more.

• Access to all the articles published by the International Journal of the Commons is free for all! For authors, this means access to an important but oftentimes untapped readership – readers from the South where universities often do not have the resources to pay for expensive journal subscriptions.

• The International Journal of the Commons counts with an editorial board that harbours the finest-of-the-finest in commons practice and scholarship.

• The IJC puts accepted papers on-line as soon as the technical editing is done. This means that manuscripts do not lie on a shelf waiting for the formal publication date.

• The International Journal of the Commons is strongly committed to getting itself indexed with all the important indexing organizations and abstractors.

Join the International Journal of the Commons group on LinkedIn

As an interdisciplinary peer-reviewed open-access journal, the IJC is dedicated to furthering the understanding of institutions for use and management of resources that are (or could be) enjoyed collectively. These resources may be part of the natural world (e.g. forests, climate systems, or the oceans) or they may emerge from social realities created by humans (e.g. the internet or (scientific) knowledge, for example of the sort that is published in open-access journals).

Using resources collectively is often believed to be problematic. In practice however, many cases can be found of common pool resources that are used in a sustainable way. The editors of the IJC welcome contributions from all scientific disciplines, from practitioners and policy makers. We hope that our interdisciplinary approach will contribute to creating a balanced and nuanced view of how common pool institutions actually emerge, develop and perform.

This LinkedIn group serves as a hub where all those involved with or otherwise interested in the IJC e.g. guest-editors, reviewers, authors, editorial board members, publishers, and readers - can meet, get to know each others' professional backgrounds, and discuss. Initially, it will serve for the occasional publication of citations and full text downloads of IJC articles.

The group may be found here: http://www.iasccommons.org/blog/join-international-journalcommons-group-linkedin

New blog by the Foundation for Ecological Security on the legal protection of commons in India

The Internatonal Association for the Study of the Commons and the Foundation for Ecological Security would like to invite you to visit the blog "Claims for Commons" http://claim-forcommons.blogspot.in/

The Honourable Supreme Court of India gave a historic judgement paving the way for protection of the commons across the country on 28th January 2011. This came in connection to the hearing on the Civil Appeal No. 1132/2011 @SLP(C) No. 3109/2011. This blog is aimed to collate all possible information related to the judgement.

People interested in the legal protection of commons in India may find the judgment given by the Supreme Court, legal documents, news articles, editorial comments and other documents related to the case.