Terms of empowerment: of conservation or communities?

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Abstract In this era of socially-oriented biodiversity conservation and resource management, practitioners and scholars all too often invoke unclear and imprecise claims of empowerment to describe changing relations between people and resources. Empowerment is an important indicator of conservation success and social transformation. Yet, when scholars and practitioners fail to adequately conceptualize empowerment, they run the risk of undermining the importance of local involvement and capacity building to achieve biodiversity conservation. Here we explore the many ways empowerment has been conceptualized in conservation. We root our commentary in the history of the use of empowerment in conservation from these diverse perspectives. We then present examples of different meanings, measurements and outcomes ascribed to empowerment. We conclude with suggestions for harnessing empowerment for the benefit of conservationists and communities alike. Because empowerment has the potential to improve resource management outcomes and local livelihoods, we recommend building an adaptive empowerment assessment framework to assist with its deployment where it is most needed. Although empowerment goals in conservation can guide practitioners and scholars to engage with communities in transparent, meaningful and lasting ways, conservation needs a critical approach that builds from an appreciation of the nuances underlying the purpose and power of empowerment for conservation.

Keywords Biodiversity conservation, community, empowerment, natural resource management, participatory conservation, power

Introduction

Social science and socially-oriented objectives have been integral to natural resource planning and management for decades (Western & Wright, 1994; Dressler et al., 2010).

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Received 1 October 2018. Revision requested 26 November 2018. Accepted 9 January 2019. First published online 27 November 2019. In recent years empowerment has become central to conservation projects. However, few conservation scholars outside the social sciences demonstrate knowledge of its diverse conceptualizations or historical underpinnings that have stemmed from socially-inclusive conservation in the 20th and 21st centuries. Because empowerment is complex, with diverse meanings, measurements and outcomes, it is necessary for conservationists to understand and reconcile this diversity of interpretation for effective and inclusive conservation.

Social scientists who study empowerment suggest that empowerment is critical to achieve long-term buy-in and sustained impact of project interventions (Garnett et al., 2007), but nonetheless difficult to define and measure (Alsop & Heinsohn, 2005). Conversely, conservationists may claim they have empowered participants without defining or exploring what the concept means in the social and environmental context of their work. Similarly, there are compounding effects of changes in project funding and barriers to cross-disciplinary collaborations, such as increasing availability of funding that builds support from the community (Roe et al., 2000) and promotes conservation social science (Bennett et al., 2017). These contrast with incommensurate vocabularies, mismatched research priorities and perceived tokenism of social scientists within the conservation sciences (Fox et al., 2006). As a result, conservationists may improperly adopt the term 'empowerment' to secure support for their work even when it offers no evidence or attempts to measure or monitor changes in power or capacity. These trends may counterproductively reinforce barriers to effective collaboration between biological and social sciences because they oversimplify and misrepresent integration of a complex social concept at the expense of long-term community change and environmental integrity. Because empowerment means different things to different stakeholders (McLaughlin, 2016), it has taken on a simultaneously commonplace yet contradictory role in conservation, raising concerns about how different parties conceptualize and deploy empowerment.

The purpose of this forum is to stimulate a critical dialogue about the uses of empowerment in conservation while advancing potential future research directions on this topic. As a starting point for this dialogue, we scanned the conservation literature of 1983–2018 for articles that engaged directly with empowerment from diverse perspectives on natural resource management. In November 2017 we used Google Scholar and Web of Science to search for 'empowerment' in 13 conservation project categories and

contexts: agroforestry, anthropocentric/biocentric conservation, citizen science, community-based conservation, community forestry, community-based natural resource management, ecotourism, environmental justice, integrated conservation and development projects, participatory conservation/methods, people-centred conservation, pro-poor conservation and protected areas. Each category represents different facets and scales of people-oriented conservation and management approaches. We stopped scanning after 26 articles (Table 1) because of time and logistical constraints that emerged from the prevalence of authors' undefined, unqualified and unassessed uses of the term empowerment. The articles we examined clearly conceptualized empowerment and provided the basis for the overview presented in the Meanings, measurements and outcomes section.

Empowerment in conservation and natural resource management

At its conceptual roots, empowerment is a process or outcome of changes in power (Carr, 2003). Power is the capacity to decide amongst choices for the most favourable outcome (Kabeer, 1999). This capacity to choose is constrained by the thoughts, communications, rules and practices of individuals, societies and institutions (Foucault, 1980). Power frequently mediates relationships between competing and unequal entities, with negative connotations of the powerful dominating the disempowered. However, power is not a finite resource to be shared and divided, and gains in power by one individual or group do not necessarily mean that another has lost power.

Empowerment can occur on an individual level whereby an individual gains autonomy over their thoughts and actions (Yoder & Kahn, 1992) or a community level whereby the community gains the ability to solve problems and control outcomes (Fawcett et al., 1984). Although empowerment may be facilitated through improved access to information, individuals and groups may only be empowered when people are able to exercise power and make decisions that achieve favourable outcomes (Alsop & Heinsohn, 2005). Thus, disempowered individuals or groups are often the targets of empowerment efforts because they are denied access to choice (Kabeer, 1999), including options for how they use their environments and interact with governing institutions. These conceptual distinctions also mirror the development of the use of the term empowerment in conservation discourse.

Empowerment in conservation can be traced back to the early 1970s with the emergence of a new people-centred paradigm. In 1971 UNESCO launched the Man and the Biosphere Programme, marking a new conservation era that benefited people (Stevens, 1997). Community rights, which were subsumed under the use of empowerment as a guiding principle, embodied different factors that inspired

this paradigm shift towards people-centred conservation. Principal among these factors were practitioners' broad concerns over a lack of attention to the impacts of protected areas on local communities (Brandon & Wells, 1992). Anthropologists, development scholars and ecologists showed that exclusionary preservation-oriented conservation was often ineffective and even counterproductive to reaching conservation and development goals (Western & Wright, 1994). In turn, a better understanding of the human dimensions of environmental degradation persuaded practitioners that conservation could not happen in isolation from development (Ghai, 1994), making empowerment a desired outcome of these efforts. The de facto strategy for empowerment then emphasized communities as target social groups for empowerment through re-establishing their rights to sustainably use their natural resources.

This nascent form of empowerment in conservation was limited to poverty alleviation as a tool to mediate how social and political factors influence the way groups of people interact with their environment. Thus, the early generations of integrated conservation and development projects were informed by the premise that poverty and lack of alternative economic activities were the main drivers of resource depletion and environmental degradation. This perspective became central to the prevailing paradigm (Ghai, 1994), placing alternative livelihood activities on the frontlines to empower local communities (Alpert, 1996) and reduce anthropogenic pressures on the environment. Yet this retained the locus of power with external actors who advocated top-down empowerment.

A burgeoning actor-centred rural development scholar-ship of the 1980s advanced processes that shifted towards bottom-up empowerment that not only included communities, but individuals as target social groups who take control of their own priorities (Ellis & Biggs, 2001). As the fields of rural development and conservation began to merge with the growth of integrated conservation and development projects, programme managers shifted their views of empowerment to consider economic impacts alongside other, more diverse metrics. Simultaneously, conservationists and social scientists injected community-level work into more traditional conservation projects to explore the impact of community involvement on conservation (Souto et al., 2014).

In the early 1990s two complementary approaches converged to lay the foundation for how we perceive empowerment today: common pool resources and community-based conservation. Research from prominent scholars in these fields (Berkes, 1989; Ostrom, 1990) provided strong evidence that community empowerment through devolution of resource governance rights laid the social foundation necessary to achieve conservation. Ecologists also began to explore and expand ways to include local economic realities, worldviews and knowledge into conservation assessments

Table 1 List of 17 empowerment categories and their definitions or descriptions from an overview of 26 articles published during 1983–2018.

Empowerment category*	Definition or description	Source
General	"The process through which people, and especially poorer people, are enabled to take more control over their own lives, and secure a better livelihood, with ownership of productive assets as one key element."	
	'Perhaps the most promising way to build and legitimize these rural peoples' capacities is to understand that local knowledge and culture-based capacities are a means of power, and can therefore be a source of empowerment. This means that these innovative [research & development] projects are likely to be most beneficial if they help people to develop self-respect, confidence, and pride in their own knowledge and capabilities—to build their own sense of power.'	Thrupp (1989, p. 20)
	"The distribution of power and status, particularly among local peoples, including authority devolved from central and state governments to local peoples and institutions; as well as participation in decision making, sharing of control, and/or democratization."	Kellert et al. (2000, p. 707)
	'In the people-centred perspective [on community-based natural resource management benefits], it is the process which empowers poor people by enhancing local management capacity, increasing confidence in Indigenous potential and raising collective consciousness, as well as meeting local needs and prioritiessuggest[ing] that genuine, people-centred active or transformative participation leads to development which is truly empowering, whilst planner-centred participation tends to be nominal with local people acting as the passive recipients of development.'	
	'Decision-making powerwhich occurs when the decentralization of resource management gives not just responsibilities, but also rights, to local communities.' 'In this case [study], the cross-scale linkage [between resource users and regulators] empowered	p. 58) Adger et al.
	previously disparate local users of the resource to engage in the co-management process and altered the blame culture of the discourse.'	
	'A properly empowered CBNRM [community-based natural resource management] regime is one which has legitimate boundaries, members and leadership, which has the right to plan for and use its resources, to determine the modes of that usage, benefit fully from their resources, determine the	
	distribution of such benefits, set by-laws for management and negotiate with other social actors.'	
	"a process in which a group develops the ability to have an input into decisions that affect their livelihoods and become more independent in defending their interests."	Almudi & Berkes (2010, p. 225)
Community	'Increased control over lives and livelihoods, including control over natural resource management, or increased land-tenure security.' 'to increase community capacity to manage the environment.'	
	'involves empowering community members to manage their own resources.'	(2006, p. 124) Pollnac et al.
	"the process of enabling communities to mobilise towards change. Five mechanisms were seen to foster community empowerment: agency; capacity building; resource provision; opportunity structure; and sustainability."	(2001, p. 685) Hennink et al. (2012, p. 206)
	'it empowers local people to participate in conservation efforts. Governments are then more likely to respond favorably to community demands. This can then strengthen local peoples' capacity to create sustainable livelihoods and improve well-being.'	Wali et al. (2017, p. 1)
	'This [boar] management system [in Italy] can be best translated as 'community empowerment' and has created a capillary network of volunteers who cooperate with the province's police force to reduce wild boar [Sus scrofa] numbers and their damageThe system entails the successive delegation of responsibility for boar management to the local community.'	
Distributive, procedural, & capacity-building	'Here, I return to singular definitions—empowerment as constituted by distributive change, procedural change, or capacity building—and propose a concept that incorporates all of these as potential dimensions of empowerment.'	Elwood (2002, p. 910)
Economic	" assisting individuals, communities and local partner organisations to achieve economic security and sustainability."	(2012, p. 209)
	'When considering whether or not a community have been economically empowered by an ecotourism venture, it is necessary to consider opportunities which have arisen in terms of both formal and informal sector employment and business opportunities Economic empowerment or disempowerment can also refer to the local community's access to productive resources in an area now targeted by contourism.'	Scheyvens (1999, pp. 247– 248)
Health	targeted by ecotourism.' 'activities that enable people, both individually and collectively, to have control over their health in terms of knowledge, decision-making, and access to health services.'	Hennink et al. (2012, p. 208)

Table 1 (Cont.)

Empowerment category*	Definition or description	Source
Individual	"a process of transformation that enables individuals to make independent decisions and take	Hennink et al.
	action on these decisions to make changes in their lives. A core mechanism identifiedwas	(2012, p. 206)
	agency[K]nowledge and the presence of an enabling environment for change were also iden-	
	tified as mechanisms.'	
Legal	"the process by which the poor are protected and enabled to use the law to advance their rights in	
	the face of claims by both the public and the private sector.'	(2010, p. 38)
Local	"[9 of 34 Fauna & Flora International Biodiversity & Human Needs Programme projects from	_
	2004–2007] aimed to increase local empowerment, mainly through participatory approaches to increase local engagement in conservation decision making.'	Wilder (2008, p. 542)
	'Despite good intentions, the [Philippines] case shows how community-based natural resource	Dressler et al.
	management's original objectives of local empowerment for rights to land, livelihood and con-	(2010, p. 7)
	servation effectively supported state interests in sedentarized agriculture and market expansion.'	(2010, p. //
Minority	"biracial or multiracial coalitions are a way for Blacks and Latinos to gain political power and	Chambers
	policy responsiveness.'	(2007, p. 31)
Natural Resource	"the ability of individuals and communities to access, use, and conserve natural resources to-	Hennink et al.
	wards sustainability.'	(2012, p. 211)
Organic	"one that evolves at the grassroots, emerging out of the day-to-day labors and relationships	Romano (2017,
0 1	associated with managing resources.'	p. 476)
Organizational	"where empowerment of a local partner organisation is a focus of collaboration, or where it is a by-product of collaborative activities."	Hennink et al. (2012, p. 207)
Political	'During the Maijuna mapping project, it became increasingly clear that the act and process of map	Gilmore &
rontical	making was politically empowering to the Maijuna, as highlighted by the fact that they would	Young (2012,
	frequently engage in conversations about the political importance of the maps that they were	p. 22)
	producing.'	1 /
	"the ability of individuals, communities and organisations to have legal rights, hold government	Hennink et al.
	accountable for protecting these rights, and have the freedom to advocate for political and legal	(2012, p. 210)
	change.'	_
	"people's ability to participate in and influence decision making processes that affect their lives	_
Psychological	(UNDP, 2005).'	Mascia (2014,
	'Self-esteem of many community members is enhanced because of outside recognition of	p. 1238) Scheyvens
	the uniqueness and value of their culture, their natural resources and their traditional knowledge.	(1999, p. 247)
	Increasing confidence of community members leads them to seek out further education and	(1999, p. 217)
	training opportunities.'	
Social	'Social empowerment refers to a situation in which a community's sense of cohesion and integrity	Scheyvens
	has been confirmed or strengthened by an activity.'	(1999, p. 248)
Spiritual	"the development and strengthening of faith and the transformation of values within an indi-	Hennink et al.
	vidual or community.'	(2012, p. 211)
Women's	"improving incomes in areas in which women dominate; encouraging gender equity so that men	
	would not take over productive activities and enabling women to form their own groups.'	Adhikari (2006,
	"To improve the role of women in conservation, we need to better understand and target the re-	p. 682) Sodhi et al.
	liance of women on natural capital, involve women more effectively in natural resource govern-	(2010, p. 143)
	ance, and build the capacity of women in conservation science and its application.'	(2010, p. 115)
	the process(es) that facilitate and promote elevation of women's socio-economic and political	Lenao & Basupi
	standing in society.'	(2016, p. 54)

^{*}Categories refer to the language authors used to label types of empowerment except for 'general', which indicates authors did not specify a type.

(Gadgil et al., 2003). In the last 2 decades, these conceptual underpinnings of community conservation models enabled diverse stakeholders to improve local conditions and preserve biodiversity. This is promoted through integrated conservation and development projects (Garnett et al., 2007), community-based conservation (Berkes, 2004), community forestry (Agrawal & Chhatre, 2006), community-based

natural resource management (Murphree, 2009; Dressler et al., 2010), common pool resources (Berkes, 1989), ecotourism (Lenao & Basupi, 2016) and protected areas (Stephanson & Mascia, 2014). Although growing multidisciplinary interest in empowerment is promising, scholars obfuscate its contribution to conservation science with an array of definitions and metrics.

Meanings, measurements and outcomes of empowerment

Scholars or practitioners who try to parse out the myriad uses of empowerment may be overwhelmed. Empowerment has been conceptualized and used across a diversity of contexts and categories in conservation and community-based natural resource management (Table 1). Although some scholars resist defining empowerment altogether because they believe that its strength lies in its ability to mean different things to different people, others believe that a precise definition makes empowerment measurable over time (Kabeer, 1999). For example, many researchers outline processes and outcomes that fall under the umbrella of political empowerment, which is considered the strongest form of empowerment. These include rights of adjudication, autonomy in decisionmaking, access to critical natural resources, capacity for financial management, increased political participation and a shift to a bottom-up, people-centred framework (Stephanson & Mascia, 2014). Scholars document processes involving decentralization of power from national or regional to local authorities. Devolution of resource rights, ability to derive equitable benefits from their use, and capacity to modify and implement local rules are examples of such processes (Kellert et al., 2000; Romano, 2017). Researchers who examine processes of economic empowerment, harkening back to traditional views, tend to focus on the provision of controlled access to natural resources that are important for livelihood generation in and around areas of value for biodiversity conservation (Budhathoki, 2004; Nilsson et al., 2016). Social and psychological empowerment processes provide the space to realize the potential of traditional knowledge, cultural practices and social capital that emphasized modes of sharing and kinship in resource management (Scheyvens, 1999).

Unlike its many interpretations, criteria for identifying, qualifying and assessing empowerment in conservation are rare. For example, a study of 45 community-based marine protected areas in the Philippines explored correlations between the notion of community empowerment and various independent variables pertinent to project success (Pollnac et al., 2001). An expert panel found that empowerment was positively correlated with village population size, democratic decision-making, local participation in projects and the willingness of communities to accept input from government and non-governmental organizations. A study analysing 42 examples of Indigenous entrepreneurship from the United Nations Development Programme's Equator Initiative found that decentralization of management powers over natural resources contributed to political, women's and youth empowerment (Berkes & Adhikari, 2006).

Drawing from its conceptual roots and contributions by Scheyvens (1999), scholars' uses of empowerment tend to vary according to: (1) the locus of power, (2) target social

groups, (3) direction of empowerment, and (4) empowerment as a process or outcome. The loci of power range from governmental entities (Kellert et al., 2000) and local livelihoods in some cases (Chambers, 1983; Almudi & Berkes, 2010; Oldekop et al., 2015) to community-based natural resource management programmes themselves (Kull, 2002). Similarly, target social groups range from individuals, people, groups, communities or institutions, although targets may be missing altogether. The direction of empowerment refers to the flow of power, whether top-down, bottom-up, or a combination. Empowerment is also used as a process and/or outcome, with large impacts on the potential for continued support to the groups that seek to be empowered. Some suggest empowerment occurs as a process of decentralization of rights and responsibilities, whereas others indicate it results from increased decisionmaking ability and control. Although these elements are similar, they diverge when scholars and practitioners apply them in different contexts, and potentially lead to vastly different outcomes.

Despite this variability, scientists and project managers increasingly see empowerment as one important indicator of conservation success. However, some scholars may declare unambiguously the achievement of empowerment (see Kellert et al., 2000), whereas others may give up when funding runs out and few or no ecological or social improvements are achieved (Rihoy & Maguranyanga, 2010). Conservation's conflicting relationship with empowerment has the potential to backfire, unintentionally generating pushback against people-oriented conservation. A reassessment of the definition and purpose of empowerment could improve conservation's impact within disempowered resource-dependent communities.

Discussion

Conservation is increasingly interdisciplinary out of necessity. Conservationists address urgent problems, work at multiple overlapping scales, and collaborate with diverse and even conflicting groups, which adds further complexity. It is thus not surprising that scholars and practitioners have adopted equally diverse and complex perceptions of empowerment. Diverse interpretations of empowerment reach all parts of conservation; empowerment is part of nearly everything social in conservation, at all scales from project development to policy implementation. It is thus incumbent on conservationists and managers to not only assess their own assumptions about empowerment, but to honestly and rigorously determine if empowerment is integral to their goals.

To effectively deploy empowerment, conservationists and managers should assess the types of and strategies for empowerment adopted in research and practice. Such an

evaluation could be viewed as an adaptive empowerment assessment, akin to adaptive co-management strategies (Armitage et al., 2007). This hybrid approach would be structured on pre-emptive, iterative and multi-scalar engagement with each projects' purpose and, importantly, the key stakeholders who are the targets of empowerment. Participants and project personnel could first co-develop a priori definitions of empowerment and nested concepts (e.g. rights, privileges) through informal conversations, key informant interviews, or focus groups. They could then design heuristics and metrics, drawing from scientific methods and local input, to gauge progress towards empowerment goals. Following adaptive management approaches, we recommend deploying these tools regularly to insert empowerment in the project cycle. This would confer multiple benefits, including the reduction of ex post facto determination that the project has achieved empowerment. Stakeholder inclusion for empowerment provides a vehicle to demonstrate that a project and its managers, who are often not members of the cultures in which they work, are genuinely invested in learning from and improving local well-being. This would inject a plurality of socially responsible perspectives (Walpole & Wilder, 2008) into a critical assumption about participatory conservation, to help bridge unanticipated divides and conflicts. This template is potentially translatable to projects in any social or ecological system where participation is feasible or essential.

To further contribute to the critical dialogue this forum seeks to stimulate, we recommend a comprehensive review of empowerment in conservation to provide greater insight into the variation of its uses and measurements. A review can also be used to develop a complete typology of empowerment in conservation, similarly to that put forth by Adams et al. (2004) to clarify the relationships between conservation and development, and to help conservationists navigate through the term's complexities. Because empowerment often deals with multiple aspects of power transfer, this typology could help distinguish different empowerment types, assumptions about their directionality (bottom-up vs top-down), how they represent empowerment as a process or outcome, and common metrics of success.

We do not suggest that simplistic, one-off measures of empowerment can or should be employed in all contexts. We do, however, emphasize the need for clarity when discussing empowerment in conservation. If empowerment is critical, researchers and managers should at least talk to local stakeholders to build working definitions that are appropriate to the cultural, institutional or economic context. If empowerment is not critical, those with power should resist the urge to leverage its rhetorical strength without a sound and practical justification. Otherwise they run the risk of disempowering stakeholders, to the detriment of both the community and conservation.

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References

- Adams, W.M., Aveling, R., Brockington, D., Dickson, B., Elliott, J., Hutton, J. et al. (2004) Biodiversity conservation and the eradication of poverty. *Science*, 306, 1146–1149.
- Adger, W.N., Brown, K. & Tompkins, E.L. (2005) The political economy of cross-scale networks in resource co-management. *Ecology and Society*, 10, 9.
- AGRAWAL, A. & CHHATRE, A. (2006) Explaining success on the commons: community forest governance in the Indian Himalaya. *World Development*, 34, 149–166.
- Almudi, T. & Berkes, F. (2010) Barriers to empowerment: fighting eviction for conservation in a southern Brazilian protected area. *Local Environment*, 15, 217–232.
- ALPERT, P. (1996) Integrated conservation and development projects. *Bioscience*, 46, 845–855.
- Alsop, R. & Heinsohn, N. (2005) Measuring Empowerment in Practice: Structuring Analysis and Framing Indicators. World Bank Policy Research Working Paper 3510. Http://siteresources.worldbank.org/INTEMPOWERMENT/Resources/41307_wps3510.pdf [accessed 10 April 2008].
- Armitage, D., Berkes, F. & Doubleday, N. (eds) (2007) Adaptive Co-Management: Collaboration, Learning, and Multi-Level Governance. UBC Press, Vancouver, Canada.
- Bennett, N.J., Roth, R., Klain, S.C., Chan, K., Clark, D.A., Cullman, G. et al. (2017) Mainstreaming the social sciences in conservation. *Conservation Biology*, 31, 56–66.
- Berkes, F. (ed.) (1989) Common Property Resources: Ecology and Community-Based Sustainable Development. Belhaven Press, London, UK.
- Berkes, F. (2004) Rethinking community-based conservation. *Conservation Biology*, 18, 621–630.
- Berkes, F. & Adhikari, T. (2006) Development and conservation: Indigenous businesses and the UNDP Equator Initiative.

 International Journal of Entrepreneurship and Small Business, 3, 671–690.
- BOUDREAUX, K.C. (2010) Community Conservation in Namibia: Devolution as a Tool for the Legal Empowerment of the Poor. Working paper no 10-64. Mercatus Center, George Mason University, Arlington, USA.
- Brandon, K.E. & Wells, M. (1992) Planning for people and parks: design dilemmas. *World Development*, 20, 557–570.
- Budhathoki, P. (2004) Linking communities with conservation in developing countries: buffer zone management initiatives in Nepal. *Oryx*, 38, 334–341.
- Carr, E.S. (2003) Rethinking empowerment theory using a feminist lens: the importance of process. *Affilia*, 18, 8–20.
- CHAMBERS, R. (1983) Rural Development: Putting the Last First. Pearson Education Limited, London, UK.
- Chambers, S. (2007) Minority empowerment and environmental justice. *Urban Affairs Review*, 43, 28–54.
- Dressler, W., Buscher, B., Schoon, M., Brockington, D., Hayes, T., Kull, C.A. et al. (2010) From hope to crisis and back again?

- A critical history of the global CBNRM narrative. *Environmental Conservation*, 37, 5–15.
- ELLIS, F. & BIGGS, S. (2001) Evolving themes in rural development 1950s–2000s. *Development Policy Review*, 19, 437–448.
- ELWOOD, S.A. (2002) GIS use in community planning: a multidimensional analysis of empowerment. *Environment and Planning A*, 34, 905–922.
- FAWCETT, S.B., SEEKINS, T., WHANG, P.L., MUIU, C. & DE BALCAZAR, Y.S. (1984) Creating and using social technologies for community empowerment. In *Studies in Empowerment: Steps Toward Understanding and Action* (eds J. Rappaport, C. Swift & R. Hess), pp. 145–172. Haworth Press, New York, USA.
- FOUCAULT, M. (1980) *Power/Knowledge: Selected Interviews and Other Writings*, 1972–1977. Pantheon Books, New York, USA.
- FOX, H.E., CHRISTIAN, C., NORDBY, J.C., PERGAMS, O.R., PETERSON, G.D. & PYKE, C.R. (2006) Perceived barriers to integrating social science and conservation. *Conservation Biology*, 20, 1817–1820.
- Fraser, E.D.G., Dougill, A.J., Mabee, W.E., Reed, M. & McAlpine, P. (2006) Bottom up and top down: analysis of participatory processes for sustainability indicator identification as a pathway to community empowerment and sustainable environmental management. *Journal of Environmental Management*, 78, 114–127.
- GADGIL, M., OLSSON, P., BERKES, F. & FOLKE, C. (2003) Exploring the role of local ecological knowledge in ecosystem management: three case studies. In *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change* (eds F. Berkes, J. Colding & C. Folke), pp. 189–209. Cambridge University Press, Cambridge, UK.
- GARNETT, S., SAYER, J. & Du Toit, J. (2007) Improving the effectiveness of interventions to balance conservation and development: a conceptual framework. *Ecology and Society*, 12, 2.
- GHAI, D. (1994) Environment, livelihood and empowerment. *Development and Change*, 25, 1–11.
- GIACOMELLI, S., GIBBERT, M. & VIGANO, R. (2018) Community empowerment for managing wild boar: a longitudinal case study of northern Italy 2001–2008. *Ecology and Society*, 23, 12.
- GILMORE, M.P. & YOUNG, J.C. (2012) The use of participatory mapping in ethnobiological research, biocultural conservation, and community empowerment: a case study from the Peruvian Amazon. *Journal of Ethnobiology*, 32, 6–29.
- Hennink, M., Kiiti, N., Pillinger, M. & Jayakaran, R. (2012)
 Defining empowerment: perspectives from international development organisations. *Development in Practice*, 22, 202–215.
- Kabeer, N. (1999) The Conditions and Consequences of Choice: Reflections on the Measurement of Women's Empowerment. Discussion Paper 108, UNRISD, Geneva, Switzerland.
- Kellert, S.R., Mehta, J.N., Ebbin, S.A. & Lichtenfeld, L.L. (2000) Community natural resource management: promise, rhetoric, and reality. *Society and Natural Resources*, 13, 705–715.
- KULL, C.A. (2002) Empowering pyromaniacs in Madagascar: ideology and legitimacy in community-based natural resource management. *Development and Change*, 33, 57–78.
- Lenao, M. & Basupi, B. (2016) Ecotourism development and female empowerment in Botswana: a review. *Tourism Management Review*, 18, 51–58.
- McLaughlin, K. (2016) *Empowerment: a Critique*. Routledge, New York, USA.
- MURPHREE, M. (2009) The strategic pillars of communal natural resource management: benefit, empowerment and conservation. *Biodiversity and Conservation*, 18, 2551–2562.

- NILSSON, D., BAXTER, G., BUTLER, J.R.A. & MCALPINE, C.A. (2016) How do community-based conservation programs in developing countries change human behaviour? A realist synthesis. *Biological Conservation*, 200, 93–103.
- OLDEKOP, J.A., HOLMES, G., HARRIS, W.E. & EVANS, K.L. (2015) A global assessment of the social and conservation outcomes of protected areas. *Conservation Biology*, 30, 133–141.
- OSTROM, E. (1990) Governing the Commons: the Evolution of Institutions for Collective Action. Cambridge University Press, Cambridge, UK.
- POLLNAC, R.B., CRAWFORD, B.R. & GOROSPE, M.L. (2001)
 Discovering factors that influence the success of community-based marine protected areas in the Visayas, Philippines. *Ocean & Coastal Management*, 44, 683–710.
- Rihoy, L. & Maguranyanga, B. (2010) The politics of community-based natural resource management in Botswana. In *Community Rights, Conservation and Contested Land: the Politics of Natural Resource Governance in Africa* (ed. F. Nelson), pp. 55–78. Earthscan, New York, USA.
- Roe, D., Mayers, J., Grieg-Gran, M., Kothari, A., Fabricius, C. & Hughes, R. (2000) Evaluating Eden: Exploring the Myths and Realities of Community-Based Wildlife Management: Series Overview. IIED, London, UK.
- ROMANO, S.T. (2017) Building capacities for sustainable water governance at the grassroots: 'organic empowerment' and its policy implications in Nicaragua. *Society and Natural Resources*, 30, 471–487.
- SCHEYVENS, R. (1999) Ecotourism and the empowerment of local communities. *Tourism Management*, 20, 245–249.
- SODHI, N.S., DAVIDAR, P. & RAO, M. (2010) Empowering women facilitates conservation. *Biological Conservation*, 143, 1035–1036.
- SOUTO, T., DEICHMANN, J.L., NÜNEZ, C. & ALONSO, A. (2014) Classifying conservation targets based on the origin of motivation: implications over the success of community-based conservation projects. *Biodiversity and Conservation*, 23, 1331–1337.
- STEPHANSON, S.L. & MASCIA, M.B. (2014) Putting people on the map through an approach that integrates social data in conservation planning. *Conservation Biology*, 28, 1236–1248.
- STEVENS, S. (1997) Conservation through Cultural Survival: Indigenous Peoples and Protected Areas. Island Press, Washington, DC, USA.
- Thrupp, L.A. (1989) Legitimizing local knowledge: from displacement to empowerment for Third World people. *Agriculture and Human Values*, 6, 13–24.
- TWYMAN, C. (2000) Participatory conservation? Community-based natural resource management in Botswana. *The Geographical Journal*, 166, 323–335.
- UNDP (UNITED NATIONS DEVELOPMENT PROGRAMME) (2005)

 The Wealth of the Poor: Managing Ecosystems to Fight Poverty.

 World Resources Institute, Washington, DC, USA.
- Wali, A., Alvira, D., Tallman, P.S., Ravikumar, A. & Macedo, M.O. (2017) A new approach to conservation: using community empowerment for sustainable well-being. *Ecology and Society*, 22, 6.
- Walpole, M. & Wilder, L. (2008) Disentangling the links between conservation and poverty reduction in practice. *Oryx*, 42, 539–547.
- WESTERN, D. & WRIGHT, M.R. (eds.) (1994) Natural Connections: Perspectives in Community-Based Conservation. Island Press, Washington, DC, USA.
- YODER, J.D. & KAHN, A.S. (1992) Toward a feminist understanding of women and power. *Psychology of Women Quarterly*, 16, 381–388.