Ten recommendations for political ecology case research

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Abstract

Contributions in political ecology draw heavily on case study research. This has triggered questions regarding the wider theoretical relevance to such studies. This article argues that one of the main shortcomings of political ecology case studies is not their wider applicability, but that scholars often miss reflection on their chosen cases and case methodology. The purpose of the article is to examine the continued relevance of case study research, especially within more recent advances of political ecology, and to develop ten recommendations for how a political ecology case study could overcome identified weaknesses.

Keywords: Case study, methodology, decolonial, more-than-human, theory building, political ecology

Résumé

Les contributions en "political ecology" ou écologie politique s'appuient largement sur des études de cas. Ceci a déclenché des questions concernant la pertinence théorique plus large de telles études. Cet article soutient que l'une des principales lacunes des études de cas en écologie politique n'est pas leur applicabilité plus large, mais que les chercheurs manquent souvent de réflexion sur les cas qu'ils ont choisis et sur la méthodologie des cas. L'objectif de cet article est d'examiner la pertinence continue de la recherche par étude de cas, en particulier dans le cadre des avancées plus récentes de l'écologie politique, et de développer dix recommandations sur la façon dont une étude de cas d'écologie politique pourrait surmonter les faiblesses identifiées.

Mots-clés: Etude de cas, méthodologie, décolonial, plus qu'humain, construction théorique, écologie politique

Resumen

Las contribuciones de la ecología política se basan en gran medida en la investigación de estudios de casos. Esto ha generado preguntas sobre la relevancia teórica más amplia de tales estudios. Este artículo argumenta que una de las principales deficiencias de los estudios de casos de la ecología política no es su aplicabilidad, sino que los académicos a menudo no reflexionan sobre sus casos elegidos y su metodología de casos. El propósito de este artículo es examinar la relevancia continuada de la investigación de estudios de caso, especialmente dentro de los avances más recientes de la ecología política, y desarrollar diez recomendaciones sobre cómo un estudio de caso de la ecología política podría superar las debilidades identificadas.

Palabras clave: Estudio de caso, metodología, decolonial, más-que-humano, construcción de teoría, ecología política

1. Introduction

Political ecology is not a theory or a method; it is a community of practice, writes Paul Robbins (2020). As diverse as the field has become since its emergence in the 1970s, reaching beyond disciplines and even academia, commonalities are identifiable that unify political ecologists, that constitute its strengths and weaknesses. One of the critiques of the field this article takes as a starting point is that political ecologists seem to "fetishize the local" (Huber 2015: 488) by focusing heavily on case studies "that stress idiosyncrasies,

contextual outcomes, and local surprises that precisely fly in the face of general theory-building." (Robbins 2020: 84).

Indeed, much literature within political ecology relies on case studies. A Google Scholar search of "political ecology" and "case study" reveals the abundance of case studies done in the field: nearly 54,000 articles appear (April 2022). Only a few of these studies clarify what using the case study methodology implies; the specific context is emphasized without indication to why and how the particular case was chosen, how it matters, what it exemplifies or how it is relatable to other cases or processes.

Noel Castree (2005) expresses a similar critique towards human geographers studying the neoliberalization of nature. "Because key questions about how 'difference' is defined are not answered consistently or (in some cases) explicitly in the research literature, it is unclear what comparisons between cases are about, or how they might be achieved in practice." (Castree 2005: 544). Critical geographers researching a "case" would emphasize its "context" as specific or unique to the "local" without reflecting on the polysemic and multi-scalar implications of these terms or on how these findings connect to wider debates in their field (Castree 2005).

This set of critiques does not consider case studies as irrelevant. Political ecology finds its strength in nuanced, richly textured empirical work – what for instance Peet and Watts (1996: 38) call "a sort of political-ecological thick description." Tor Arve Benjaminsen and Hanne Svarstad explain in their recently published book on political ecology (2021), "having local sites as points of departure has often proven to be useful for identifying how various actors and processes influence and shape power relations through interaction between local and distant spaces across scales." But a deeper reflection of the methodology's relevance to political ecology (and the other way around) is so far missing.

I argue that there is the need for a closer engagement with methodology in political ecology. Not just to answer questions of why case studies matter but also to respond to current and future research challenges. My main contribution in this article is to respond to the above critique by showing the continued relevance of case studies in political ecology and by providing suggestions for how to engage more rigorously with the methodology. This article could be useful in particular to scholars and students new to the field, who are considering doing a case study in political ecology, but also to political ecologists who want to reflect more on their own use of case studies and/or might teach the methodology in class.

I will start by outlining the continued relevance of case studies to recent developments within political ecology and the empirical and theoretical insights they offer. This analysis will allow me to develop ten recommendations for a political ecology case study and its potential to become a distinct research approach that is able to respond to the above critique.

2. The continued relevance of case studies to political ecology

Political ecology has been broadly described as a field or approach that critically examines human-environmental relations (as known to cultural and human ecology) and the political economy these are embedded in. Robbins (2020: 3) writes for example, political ecology is "a field that seeks to unravel the political forces at work in environmental access, management, and transformation." Peet and Watts (1996: 6) say, similar to Blaikie & Brookfield (1987: 17), "that it is a confluence between ecological rooted social science and the principles of political economy."

Taking political ecology as an approach implies seeing the environment as a concept that encompasses biophysical phenomena, social practice and cultural meaning, according to Lisa Gezon and Susan Paulson (2005: 2). According to Michael Watts (2000: 257) it also means considering environmental conflict in terms of struggles over "knowledge, power and practice" as well as over "politics, justice and governance."

While political ecology made its first appearance in the 1970s in the global North among researchers influenced by Marxism and emerging critical realism, many of whom studied environmental degradation in the rural South (e.g. Blaikie & Brookfield 1987; Peet & Watts 1996), it has increasingly extended geographically, for instance to studies done in urban centers in the North, but also methodologically and theoretically, engaging more and more with environmental justice, poststructuralism, feminism, degrowth and other fields (Benjaminsen & Svarstad 2021; Robbins 2020).

In particular, scholars in the global South have aligned political ecology with decolonial approaches to scholarship. Traditional political ecology focused its analysis on *resource access*. In close engagement with non-western worldviews, it becomes apparent that land struggles are often conflicts over lifeworlds, worldviews, and knowledges. Accordingly, a resource conflict should also be seen as an ontological conflict (Blaser 2013; Escobar 2016; Grosfoguel 2016; Machado Aráoz 2017).

Connected to this is the growing ambition by political ecologists to uncover the destructive universalization of the western language and value systems surrounding modernity, progress and development. A binary, deterministic understanding of the world has heavily transformed environmental and social realities in the global South (Escobar 2012; Herrera Huérfano *et al.* 2016; Quijano 2000). Decolonial scholars try to break with the abysmal thinking (*pensamiento abismal*; Santos 2007) that still dominates scientific understanding today, and that divides the world into human vs. nature, science vs. belief, true vs. false, objective vs. subjective, and 'we' vs. the other. They bring "the other" back into the picture, to highlight their rights and relevance, and to overcome dichotomies (Alimonda 2011; Machado Aráoz 2010, 2017; Mignolo 2000, 2007). The 'other' could be the non-human, non-white, non-modern, non-male, non-heterosexual and so-on.

Another key aspect of decolonial advances within political ecology is the enunciation of the diversity of relations, perspectives, voices, and knowledges specific to place but also in constant exchange with other spaces and times (Escobar 2001, 2003; Machado *et al.* 2017; Merlinsky 2017; Ulloa 2015, 2016). Political ecology must engage in a dialogue with plural knowledges and perspectives, to explore (shared) historical experiences of subjugation and resistance. In this sense, knowledge is generated at the interface between academia and social mobilization, to target social, cultural and environmental injustice (Herrera Huérfano *et al.* 2016; Machado Aráoz 2017; Martinez Alier *et al.* 2018; Toro Pérez & Martín 2017: 14).

The case study methodology has proven itself valuable to these advances within political ecology. Case studies allow the close examination of complex processes specific to space and time to gain empirical insights into the social relations and power hierarchies that have shaped environmental change (Benjaminsen & Svarstad 2021: 4, 196, 233; George & Bennett 2005: 145–146; Gezon & Paulson 2005; Ulloa 2015). The in-depth engagement with one particular case opens up the understanding of the diverse range of perspectives and knowledges around environmental issues (Peet & Watts 1996: 38; Ulloa 2016). Moreover, a case study allows tracing processes across scales to explore interrelations between humans and their environment, the past and the present, and the global and the local (Blaikie & Brookfield 1987: 27; Robbins 2020: 89).

These empirical advantages of case studies have been foundational in gaining theoretical insights in political ecology. Inductively, case studies done in political ecology have significantly contributed to an understanding of the diversity of human-environmental systems (e.g. Ulloa 2010; Vayda 1983) and of the politics behind environmental issues by analyzing local processes of accumulation, people's access to resources and knowledge, the production of discourses and the construction of place and scales, to name a few (e.g. Blaikie 1985; Blaikie & Brookfield 1987).

Deductively, political ecologists have played an essential role in debunking theories and environmental narratives that have been taken for granted, by for instance policy makers and/or development workers and are shaping environmental governance. Famous examples are case studies that have shown the fallacy of the "tragedy of the commons" and related Malthusian thinking (see for a detailed discussion of the literature see Benjaminsen 2015; Robbins 2020: 47–50), or the destructiveness of the green development paradigm (see Bakker 2015; Benjaminsen & Bryceson 2012; Bergius & Buseth 2019; Buseth 2017; Cavanagh & Benjaminsen 2017; Harcourt & Nelson 2015).

Karen Bakker (2015: 449) says:

> …political ecologists have been at the forefront of academic scholarship on the neoliberalization of nature. Their research has been characterized by detailed case studies that dispense with the notion of neoliberalism as an ideal-type, through careful specification of the specific processes at work in 'actually-existing neoliberalisms.'

Placing individual case studies in dialogue with others that find fault with similar processes, as in studies of biodiversity conservation, in different regions of the world, allows for a wider critique on the

neoliberalization of nature, for example (Bakker 2015; Dunlap & Fairhead 2014; Sullivan 2009, 2013) – as hoped for by Castree (2005).

Consequently, case studies have played an essential role in the development of political ecology; and I want to argue that also the reverse is true: political ecology approaches can have important influence on case study research.

A case study is a research methodology that throughout the years has been used within different philosophies of science and schools of thought. As with many methodologies, case studies had their origin in positivism and realism, where researchers saw their main value in theory testing and the identification of variables during the exploration phase of research (see e.g. Abercrombie *et al.* 2006; Campbell & Stanley 1966; Dogan & Pélassy 1990). But especially since the 1980s social scientists have rediscovered this research strategy, and challenged its traditional associations as being biased and inadequate for theory-building. Important contributions can be found in the later works of Giddens (1984) and Campbell (1975) and are made by scholars including Robert Yin (1981), Kathleen Eisenhardt (1989), and Bent Flyvbjerg (2006).

Case study research has subsequently been adapted by critical realists, constructivists, and poststructuralists to fit the purpose of researching narratives and worldviews (see George & Bennett 2005; Lund 2014). Also, political ecologists themselves have shaped case studies in this direction. But looking at the academic literature that explains the case study methodology, when to use it, how to apply it and how to generate theory from it, I think there is still much to be learned, especially from more recent advances in political ecology.

3. Ten recommendations for political ecology case studies

Based on the above discussion and observed advances already taken place, I have ten recommendations for political ecology case studies:

1. Reflect on scale/temporality of case delineation
2. Consider the wider historical/political economy context
3. Follow webs of relations across scales
4. Work across disciplines
5. Explore dissonant knowledges
6. Acknowledge intersectional and more-than-human perspectives
7. Reflect on your own situatedness and positionality
8. Engage with research ethics and participatory methodologies
9. Adopt a critical-normative stance
10. Be constructive

Reflect on scale/temporality of case delineation

A political ecology case study should be reflective on what the case under investigation is, and how its scalar dimensions are defined in space and time. Usually, the case study scholar chooses a local, specific, and concrete case as point of departure; common to political ecology is the choice of a locally experienced environmental change and/or connected responses to it. However, the "local" is not a scale that is fixed. The local can be restricted to "community water control practices in Mollepata, Peru" (Boelens 2014: 234) or widened to "resistance to the practice of Environmental Impact Assessment (EIA) in mining and energy projects in Guatemala" (Aguilar-Støen & Hirsch 2017: 225). Important is to recognize that a case is not a geographical location with natural spatial and temporal boundaries; it is "a phenomenon of scientific interest that the investigator chooses to study with the aim of developing theory" (George & Bennett 2005: 17–18). Global development scholar Christian Lund (2014: 224) explains:

> A case is an edited chunk of empirical reality where certain features are marked out, emphasized, and privileged while others recede into the background. As such, a case is not 'natural,' but *a mental, or analytical, construct* aimed at organizing knowledge about reality in a manageable way." (emphasis added)

I recommend that every political ecology case study addresses the question of what features are "marked out, emphasized, and privileged" and for what purpose. This reflection provides a transparent understanding of the choices made in the research process and which comparisons and abstraction the case allows to draw.

Consider the wider historical/political economy context

The political ecology case should be seen in its historic and political economic context, moving analysis back in time and outward in space (Benjaminsen & Svarstad 2021: 4–5, 233; Gezon & Paulson 2005). The scale of analysis chosen is seen as embedded within vertical and horizontal relationships to other spaces and times, which need to be considered for their influence on power structures determining the present situation at the local.

Often political ecologists select a case for examination, because it has been targeted or has been influenced by an extra-local or global process, mechanism or discourse, like a village situated within a forest that has been chosen for a carbon offsetting scheme (e.g. Asiyanbi 2016; Cavanagh & Benjaminsen 2014), or a farming community that needs to be resettled to make place for a reservoir (e.g. Cardona *et al.* 2016; Orduz Salinas & Rodríguez Garavito 2012; Salcedo Montero & Cely Forero 2015). This allows a researcher to contribute the concrete case analysis to a wider literature on, and conceptualization of, the particular process, mechanism, or discourse.

Follow webs of relations across scales

Accordingly, a political ecology case study should move attention from "chains of explanations to webs of relation" as nicely expressed by Dianne Rocheleau (2008). This demands that the researcher looks beyond causal relationships, remaining open and flexible towards the unexpected. The analysis of practices, narratives and discourses can uncover less visible structures and serve to follow the "web of relations" to other spaces and times, across scales. Environmental discourses, for instance, can evolve locally but commonly are adapted from regionally, nationally or even globally recognized discourses that carry political power, like desertification, deforestation and overstocking, that can be used to marginalize certain population groups (Adger *et al*. 2001; Benjaminsen 2021).

Work across disciplines

A political ecology case study should not be restricted to one discipline or practice (as mentioned at the start). The local experiences are investigated, relying mainly on social analysis, but combining it with ecological, economic, political, legal, or medical analysis, if it helps understanding the reality under investigation. For example, Leticia Durand and Juanita Sundberg (2022) analyze the "vegetal political ecology" of the plant Lacandonia schismatica and its relevance for theories of evolution. Machado *et al.* (2017) use the concept of legal pluralities, inspired by Santos and Rodriguez-Garavito's *Law and globalization from below* (2005), to "shed light on how subaltern groups appropriate and reconstruct legal apparatuses" to achieve environmental justice (Machado *et al.* 2017: 1078). Another fascinating example of crossing disciplines is the political ecology of health and bodies, which explores power dynamics that influence the knowledge around and spread of illness and disease (see for a review of this literature see Nichols & Del Casino 2021). Especially in light of the Covid-19 pandemic, questions regarding differentiated perceptions and treatments of the body, and the connection between racism and health need to be tackled (see Fernando 2020; Neely & Lopez 2022).

Explore dissonant knowledges

A political ecology case study explores multiple actors, knowledges, and perspectives, not to devalue dissonant knowledges but to further investigate them. Here, feminist political ecology offers important insights. Andrea Nightingale (2003: 86–87) says, "When different kinds of knowledges are taken seriously and all are critically interrogated, richer results are generated, new interpretations emerge and the supremacy of any one kind of knowledge is challenged." In that line, Sharleen Hesse Biber (2012: 137) advocates triangulation not as "a tool of convergence with the goal of validation", but a tool that "seeks divergence in the service of complexity

and richness of understanding." Instead of using a set of (mixed-)methods to cross-validate findings against each other, triangulation is applied to explore inconsistencies and why they might have occurred, i.e. which perspectives/voices might have been excluded or included within one method compared to another (Hesse-Biber 2012).

Acknowledge intersectional and more-than-human perspectives

This leads me to the next point, to recognize and acknowledge intersectionality and the more-than-human within political ecology case studies. More than any other methodology, case studies allow to dive into the richness of spheres/views/values that constitute a research case. Feminist, black and LGBT+ scholars have substantially contributed to a wider recognition of distinct social experiences of environmental challenges (Heynen 2018; Radcliffe 2017; Zanotti & Marion Suiseeya 2020). And multispecies researchers have started to adapt case study methods towards more ecocentric understanding of the world (Durand & Sundberg 2022; Lederach 2017; Pecharroman 2018). The Covid-19 pandemic, climate change and the rapid digitalization of human life reveal additional challenges for critical research, to include microbes, genes, particles, molecules, smart phones, or social media into our analysis. Astrid Ulloa (2015: 321) states,

> I believe that these local relationships with the nonhuman in specific spatial contexts allow us to concretely reconceptualize processes associated with capitalist nature, and identify unprecedented proposals for alternatives to development. Such proposals, however, must arise from specific local contexts and not generalize or essentialize these options.

Reflect on your own situatedness and positionality

An essential component of any political ecology research is for the researcher to recognize, reflect and to be transparent about their situatedness and positionality. Whether, being from the area under investigation and taking part in the social-environmental change under examination, or coming from the "outside" and observing social-environmental change, both positionalities have their advantages and disadvantages. The researcher's race, class, gender or age can further influence how they are perceived and encountered during their research (Sultana 2007). Even if not intended, any research project is influenced by positionality and situatedness and leaves its traces in the field (Haraway 1988; Harding 1992).

Engage with research ethics and participatory methodologies

Strongly related to this, is the researcher's engagement with the world, or people, being researched. As stressed by decolonial political ecologists, knowledge is often generated at the interface of academia, social activism and politics. A political ecology case researcher should be respectful towards collective knowledge creation and seek inspiration from the research ethics of participatory methodologies. Important contributions can be found here among Latin American thinkers like Fals Borda (1979, 2006), Bartolome (2003), Escobar (1991, 2016), Herrera Huérfano, Sierra Caballero, and Del Valle Rojas (2016) and Santos (2007, 2014).

Adopt a critical-normative stance

Producing knowledge at the interface of academia and activism goes hand in hand with making not only descriptive but also normative statements about the case and, if applicable, about the wider processes that are being studied (like an environmental policy or narrative) – this is the ninth recommendation I want to make. Political ecology seeks root causes of problems and conflicts, and communicates these often in a wider social critique, like the argument that green energy also promotes more capitalist extractivism, in terms of resource consumption and the appropriation of land or water (Argenti & Knight 2015; Del Bene 2018; Dunlap 2017, 2018).

Be constructive

Additionally, many political ecologists see themselves as having the responsibility to not only point out injustices but to contribute in finding solutions, being affirmative and policy relevant in their case studies

(Batterbury 2018; Cavanagh & Benjaminsen 2017; Robbins 2020). However, a prominent critique of political ecology is that it is mostly critical but not applied, applying the 'hatchet' but not the 'seed' (Alhojärvi & Sirviö 2018; Blaikie 2012; Walker 2006, 2007). Consequently, my tenth and final recommendation is for political ecology case studies to be affirmative and to offer applicable solutions to the problems being identified, whenever possible.

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I consider all of these ten recommendations to be relevant for a political ecology case study. But I do not claim completeness, nor should these points be understood as a checklist that one needs to fulfil to justify doing a political ecology case study. Rather, I intended to present a sketch of the benefits emerging from interlinking methodology in an academic field, with the potential for forming a distinct research approach.

4. Conclusion

As I argued at the start, much literature within political ecology claims to rely on case studies without clarifying what this implies. This explains in part the critique that political ecology 'fetishizes the local.' The specific context is highlighted without an indication as to why and how a case was chosen, how it matters, what it exemplifies, or how it is relatable to other cases or processes. I have argued that a closer engagement with methodology in political ecology is needed. The ten recommendations offered in this article are meant as a first step in that direction. Not just to answer questions of why case studies matter, but also to respond to current and future research challenges.

Political ecology is a rapidly evolving field and is increasingly engaging with decolonial theories as well as interfacing with multispecies and science and technology studies, among others. These approaches urge us, more than ever, to re-think our ways of producing critical knowledge. As Santos (2007) has emphasized, not only new critical thinking is required, but also a new way of producing it.

Important steps towards decolonizing methodology lie still ahead. I named important Latin American scholars, that have contributed to overcoming dichotomies, like between science and activism. The idea of *sentipensar*, to think through feeling and to feel through thinking, which has its origin in Afro- descendant worldviews along the Colombian Pacific coast, challenges conventional perceptions of knowledge creation beyond the idea of recognizing tacit knowledge within academia (Escobar 2014; Fals Borda 1986, 2009). Equally thought-provoking is Māori scholar Linda Tuhiway Smith's call for researchers to always consider for whom/what purpose their research serves (2012).

Technological advances, in genetic engineering and artificial intelligence, may drive the need for more revolutionary changes in methodology, ontology, and epistemology, making more-than human research ever more valuable. Posthumanism, an emerging field of philosophy, sparks methodological inspiration in that regard. Italian philosopher Francesca Ferrando (2012) for example elaborates the methodological implications of the perspective, arguing for overcoming the theory-practice divide and Jasmin Ulmer's work on "Posthumanism as research methodology: inquiry in the Anthropocene" (2017) advocates for new creative ways of thinking and being in research by using, for instance, non-representational methodologies that focus on "life" as it arises "from the entanglement of actors—human and non-human animals, organic matter, and material objects" (Vannini 2015: 8; see also Ingold 2006, 2015).

Political ecology case research has the potential to incorporate decolonial and posthuman methodology and to gain indispensable insights into the global challenges of our time. In this article, I have provided ten recommendations to strengthen the case methodology within political ecology and to live up to its potential. With this, I wish to encourage political ecology scholars, including myself, to critically explore and reflect on their own methodologies, on the adequacy of established methods for new research challenges and to imagine what more a political ecology case study could be.

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