The affect of effect: affirmative political ecologies in monitoring climate change adaptation interventions

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Abstract: All over the world, climate change adaptation interventions (CCAIs) are being implemented in a variety of ways, but mostly monitored using outcomes-based monitoring and evaluation (M&E) frameworks that are prone to oversimplification and outside-imposed priorities and knowledges about climate change. Existing monitoring and evaluation practices can only provide results with reference to project goals and processes, and tend to be top-down and neo-colonial in method and scope. This means they may frequently miss unexpected or localised aspects of adaptation interventions, some of which may be useful beyond the local level. While it may be possible to just explore the neo-colonial aspects of this political ecology of monitoring and evaluation of climate change adaptation interventions in our fieldwork in Thai Binh Province of Vietnam, an affirmative political ecology also tries to identify and proliferate alternative possibilities for meaningful monitoring and evaluation of adaptation interventions. In this essay, we reflect on the ways in which our research into embodied knowledge in local level monitoring and evaluation in rural Thai Binh province of Vietnam could be understood as affirmative political ecology. Through paying attention to the embodied knowledges and the cares and concerns of farmers and ourselves as scholars, we can get at the physical and material changes in environment and livelihood, but also move beyond critique into rethinking how new worlds and ways of being in and with the more than human can emerge.

Keywords: affirmative political ecology, climate change adaptation, embodied knowledge, monitoring and evaluation.

Introduction

In this time of human induced climate change disruption, "it is now commonplace, and even trite," anarchist geographer Simon Springer points out, "to suggest that it is high time to try a radically different approach" (Springer 2016, 22). We are stretched to the edges of our thinking capabilities as scholars of climate, economy, environment, and politics. Scientists of climate have called on scholars in the humanities and social sciences to help with the task of finding "new ways to live with the earth, to rework ourselves and our high energy, high consumption,

hyper-instrumental societies adaptively", to use eco-philosopher Val Plumwood's touchstone words (Plumwood 2007, 1). But both scientists and humanities scholars struggle with this task of coming up with 'radically different approaches' or 'reworking ourselves and our societies' because we are simply not trained or prepared to do this thing. Whether we work in political ecology or political economy, feminist geography or emerging anthropologies, we are primarily trained to identify patterns, to critique, to point out oppression or social construction or racism or anthropocentrism *but not to come up with something different* (and indeed perhaps the fear of being subjected to such critique disables us). It is with this problem in mind that we approach our study of climate change adaptation interventions in the Vietnamese province of Thai Binh. Here, as scientist and social scientist, we resist our urge to write a political ecology of disaster – of neo-colonialism, neo-liberalism, technocentricity, obsession with metrics, the spread of development aid bureaucracies and how all these things shape the lives of ordinary people doing farming work in changing climates. We resist this, not because it is untrue or unimportant, but because – if we are honest – we *already know this is happening*. What we *don't* know is how to do things differently, and indeed, what *else* might be happening under our own eyes as our critical gazes seek out familiar patterns.

It seems that there are two sides to trying a radically different approach to political ecology, then. While Springer and Plumwood are referring to a different approach to economic, political and ecological relationships, the other side of the coin is a different approach to scholarship. To help us in our thinking, we turn to the thinking techniques of the Community Economies Collective (CEC), building on the work of JK Gibson-Graham who so successfully challenged our understanding of political economy in her 1996 publication *The End of Capitalism (as we knew it): A feminist critique of political economy*. Drawing on queer theory, J. K. Gibson-Graham (1996) asked us to reimagine the landscape of political economy as being *not* only capitalist, and to seek out and describe those multiple non- and alternative-capitalist features without assuming a particular direction of subsumption into capitalism. The idea was to see the multiplicity of already-present economic practices that might be marshalled to deliberately renegotiate what they called 'a community economy', based on shared being-in-common and ethical negotiation. Their subsequent work, and the work of the CEC and the wider Community Economies Research Network (CERN)[1], has been to continue to seek out and marshal this multiplicity in scholarship, to deliberately resist the 'grand narrative' approach to scholarship so that these possibilities and negotiations do not become invisible in the world of scholarship.

In recent years, work in CEC and CERN has made a significant shift into the realm of political ecology. A newer generation of scholars engaging with new materialism, posthumanism, and feminist science and technology studies (for example Barron 2015; Burke & Shear 2014; Dombroski Healy & McKinnon 2019; Emery & Barron 2010; Gabriel 2016; Healy 2014; Roelvink 2015b; Roelvink & Zolkos 2015; Snyder

& St Martin 2015) have made new allies in developing forms of more-than-critical political ecology, what Sirviö and Alhojärvi might here call 'affirmative political ecology'. As part of this wave, Huong Thi Do began her work on the monitoring and evaluation of climate change adaptation interventions and Kelly Dombroski began working on theories of feminist political ecology. In this short piece, we work together to describe three scholarly moves in a research project that might be described in turn as a work of more-than-critical, or even affirmative, political ecology. These moves are firstly, recognising the limits of critique, secondly, identifying shared matters of concern, and thirdly, moving towards the trouble in embracing matters of care.

The limits of critique: Narratives of monitoring and evaluation

No one recognises the limits of critique more than the development field worker trying to work out what to do. Huong Thi Do has worked for 9 years as researcher at a governmental organization in water resources management, environment protection and climate change in Vietnam, providing support to field workers implementing climate change adaptation programmes, among other things. As such, it initially made sense when we began our work together on her doctoral studies to focus our attention on monitoring and evaluation of water-related climate change adaptation interventions.

Vietnam is considered one of the most affected countries in the world, especially coastal areas such as the northern coastal province of Thai Binh (World Bank 2009). Thai Binh is an area highly prone to tropical cyclones; they hit this area 2 times annually (Du *et al.* 2014). It is also an agricultural province bearing the nickname of the "homeland of rice" in North Vietnam. Rice production is also the most important livelihood for the locals and is a compulsory crop for local farmers to grow. Climate change brings many adverse impacts for the locals, especially water-related issues such as floods, salinity intrusion, water scarcity and sea level rise. Because of these risks, a number of climate change adaptation interventions are already under way. These include irrigation infrastructure projects, water supply systems, sustainable livelihoods projects and mangrove forestation, amongst others. They primarily follow hierarchical mechanisms of planning and are associated with development programs that are intended to promote national level sustainable development (Nguyen, Miller, Bowen & Tan Sinh 2017; Prime Minister of Vietnam 2011a; Zink 2013). Because of this priority, there are specific processes in place for investing in and measuring climate change adaptation interventions in Vietnam (Prime Minister of Vietnam 2011b, 2014). Yet approaches to both monitoring and evaluating these interventions are fraught – current approaches are unable to capture transformations that occur outside the narrow expectations and predictions of the original designers, and like many similar programmes, they tend to focus on measuring predetermined outcomes, using deterministic and linear understandings of change within static timeframes focused on project completion (rather than ongoing

understandings and monitoring of dynamic and unpredictable systems) (see also Uitto, Puri & van den Berg 2017; Viggh, Leagnavar, Bours & McGinn 2015; Villanueva 2010). For example, the monitoring and evaluation decisions on the World Bank project on fresh water supply and sanitation and "the New Rural Program" in Thai Binh have struggled to capture on-the-ground change.

Internationally, this critique is not new. It is well recognised in both critical and mainstream monitoring and evaluation literature on both climate change and other human and ecological processes that these are the limits of a static framework of monitoring and evaluation. Patton and co-authors, like many others, note

"Traditional [mainstream] evaluation approaches advocate clear, specific, and measurable outcomes that are to be achieved through processes detailed in a linear logic model. Such traditional evaluation demands for upfront, preordained specificity don't work under conditions of high innovation, exploration, uncertainty, turbulence, and emergence." (Patton, McKegg & Wehipeihana 2015, vi)

Despite the fact that these critiques of monitoring and evaluation are not new and indeed are widespread, official government interventions in Thai Binh have yet to develop alternatives, and indeed, climate change adaptation intervention funding in the Majority (or 'developing') world often requires accountability and reporting structures based on classic development project management techniques that require and reinforce static monitoring and evaluation methodologies. Because Huong

Thi Do has long worked within this system, we were well aware of these limitations, even of supposedly more progressive methods of participatory development which are also often co-opted by states and powerful interest groups. While one option for a doctoral project would have been a critical analysis of the failures of Vietnam's monitoring and evaluation of climate change adaptation interventions, we began with a joint desire to do something different in the academic context in which we find ourselves. We admit to initially feeling stumped as to what[2]. In some ways, we had reached the limits of critique – academic critique describing political ecologies of power, neo-colonialism, injustice and the global cult of metrology and technocracy could not easily change anything within Thai Binh in anything like the near future. Critique, Stephen Healy suggests, 'remains the primary, if not the only political project' for much of the academy (2014, 3), yet in many disciplines, the connections with on the ground decision-making and local politics remain ever weak. In order to do political ecology that contributed to climate change action and transformation towards new ways to live with the earth in Thai Binh and elsewhere, we somehow had to move away from describing, critiquing and analysing 'matters of fact' as remote academics, and start building a new local and global knowledge community around shared 'matters of concern' for our time (Latour 2004). Like many others in the field of participatory development and action research, we realised that this means engaging wholeheartedly with some of the problematic politics and ecologies of development -- what Wright (2017) calls

'mucking in' (see also Rocheleau 2015 for a feminist political ecology).

Matters of Concern: Multiple knowledges in political ecology

An effective political ecology of the monitoring and evaluation of climate change adaption interventions must thus gather around joint matters of concern not just for ourselves as researchers and 'knowledge workers' but for government officials, local people, ecologies and economies in place. In other words, it must be affective as much as effective. For Latour, the concept of 'matters of concern' is supposed to counter some of the issues of our years of scientific focus on establishing neutral matters of fact, which

> "…were distorted by the totally implausible necessity of being pure stuff of no interest whatsoever…while at the same time being able to "make a point", humiliate human subjectivity, speak directly without speech apparatus and quiet dissenting voices." (Latour 2014, 121)

They were, after all, "the facts, whether you like it or not", and here Latour imagines a fist thumping the table, an insistence that the facts "speak for themselves". But if we trace the work of Latour from his early observations in the lab (Latour & Woolgar 1979) to his current efforts at supporting climate change politics (de Vrieze 2017), we can see careful attention being paid to the construction of scientific facts – not as a way of dismissing them in a critical fashion,

necessarily, but as way of shifting attention from the 'stage' to the 'whole machinery of a theater' (Latour 2014, 114) producing what is seen on the stage.

In the same way, Guba and Lincoln (1989) have drawn attention to the wider process around the 'facts' of project evaluation, arguing that

> "…evaluation outcomes are not [just] descriptions of the "way things really are" or "really work", or of some 'true' state of affairs, but instead represent meaningful constructions that individual actors or groups of actors form to "make sense" of the situations in which they find themselves. The findings are not "facts" in some ultimate sense but are, instead, literally created through an interactive process that includes evaluator (so much for objectivity!) as well as many stakeholders that are put at some risk by evaluation. What emerges from this process is one or more constructions that are the realities of the case."(p.8)

It is this collective 'making sense' of the multiple possible realities in which we find ourselves that the concept of matters of concern becomes helpful. In the case of climate change adaptation interventions and their monitoring and evaluation, how do multiple stakeholders 'make sense' of the state of affairs in a way that acknowledges the intersubjective role of the evaluator and other actors?

In our work, we have also tried to think about the more-than-human actors at play in climate change adaptation interventions, and the different types of knowledges that different subjects, bodies and beings bring into the process of both adaptation and evaluation. When Huong Thi Do went

into the field to conduct research into local climate change adaptation interventions, she found multiple types of knowledges at play in assessing the effectiveness of interventions such as new irrigation infrastructure: scientific knowledges, engineering knowledges alongside traditional, embodied, interspecies, and entrepreneurial knowledges, much of which was gendered and classed and emplaced.

A more-than-critical political ecology of monitoring climate change adaptation interventions in Thai Binh, then, involves more than establishing political ecology 'facts' such as whether they are truly adaptive or are 'really' oppressive or co-opted. It must instead include close attention by all actors with all their knowledges to the almost universal matter of concern that we might call, after J. K. Gibson-Graham, Cameron, and Healy (2013) 'surviving well'. It is a concern for collective surviving well – our participants, ourselves, our ecologies – that brings us to the point of an affirmative political ecology, where it is no longer enough to make sense of reality with one grand narrative and one set of agreed upon facts. When we attempt a political ecology attentive to the diverse possible realities gathered around one set of concerns, like Roelvink, St. Martin, and Gibson-Graham (2015), we might start to see and describe previously marginalised and diverse collectives and collective action (what else was formed here and how? what do we do with this knowledge? what do we as researchers perform and make more real when we focus on one thing and not another?). Anna Tsing's work for example, regarding the political ecology of forests in Indonesia (Tsing, 2005) and mushrooms

all over the world (Tsing 2015) asks us to pay attention to those awkward, frictional, engagements between different knowledge spheres and places, where engagements somehow enact forms of change across vast differences in understanding and even ontology. Indeed, with Dombroski, Healy and McKinnon (2019) we might 'see a repeating pattern where new [and diverse] understandings of the nature and extent of the problem can elicit a response: a shared concern develops, a call to action is heard, and response envisioned and enacted through the work of care', in communities both small (such as farming communities in Thai Binh) and large (such as the scientific and political community that worked to enact the Montreal protocols to halt ozone destruction described in Gibson-Graham, Cameron & Healy 2016). The emerging matter of concern is sometimes the same object with an overlapping set of facts (such as ozone depletion), but just as often, not, as in the case when multiple ontologies meet around a shared concern in the birthing room (Dombroski, McKinnon, & Healy 2016). It is this work of care in envisioning and enacting responses that we turn to next: the troubling, sometimes obligatory, often affective and almost always laborious work of care.

Moving to matters of care: Embodied monitoring and evaluation

For feminist political ecologist Maria Puig de la Bellacasa, Latour's notion of matters of concern remains too neutral – a politics of people and 'matter' where any *thing* can

be a matter of concern, but yet does not quite get at the non-neutral, passionate and unabashedly troubled notion of our deep attachments and cares (Puig de la Bellacasa 2012, 2017). For us, this means not just bringing into account the multiple knowledges of multiple climate change adaptation stakeholders and actors as somehow neutral researchers making space for multiplicity, but paying attention to *our own* cares and complicities as researchers and humans with a stake in the world. Climate change adaptation is complicated, processual, uncertain, dynamic, adaptive and even generative in particular contexts. We – humans, places, living beings – are also deeply invested in the outcomes. What will become of each of us? Will we all survive well? As Huong Thi Do writes in her notes:

"My field trips for this research are not only case studies, but also my own memories from my childhood and the explanations from my relatives. My body and mind have been intertwined with not only the physical non-human entities of the fields, it also connects with the emotions, concerns and the current social status of the local residents. My own embodied knowledge opened up for me a new understanding of how change due to climate change adaptation interventions can be differentiated at embodied levels. I differentiated the storm water, shallow ground water and running water through my taste buds, showering my body, and washing my clothes. I noticed the freshness, sweetness, and satisfaction that came from storm water, as well as the saltiness, stickiness and sliminess of the shallow ground water in dry seasons. The combination of my embodied knowledge and that of the participants I interacted with reveal

the complexity and messiness of the impacts of climate change adaptation interventions on the local communities."

As a non-neutral, caring subject, as one who is more-than-rational, more-than-scientific, a more-than-researcher, Huong learned to be affected by the more-than-human world around her as she tried to assess the effects of climate change adaptation interventions both affectively and effectively. Her own 'complicity' as a government-employed scientist implementing infrastructural projects for water-related climate change adaptation meant that she cared deeply about whether these projects made any difference, and if so how and why. Like Gibson-Graham's deliberate cultivation of the beginner's mind (Gibson-Graham 1996), our less intentional lack of knowledge around rice farming practices led us to rely heavily on the farmers' interpretations of the somatic information they daily received: why did the interventions in one community seem to be employed in a relatively straightforward way, leading to better implementation processes and outcomes? Why did the interventions in another community result in poor outcomes and negative feelings on the part of the farmers?

In answering these questions Huong carefully documented farmers' reports of bone-deep tiredness after long days of transplanting work, fear of potential climate-related risks, salt water, flooding, and even the demands for care that the baby-rice plants seemed to make on their farmer-parents. We analysed the transcripts of famers who ignored the teachings of the young engineers with their fancy methods

for measuring salt concentration, and who adapted their taste buds, nostrils, vision and more to determine the right times for irrigation: Mr L, for example, has controlled his hamlet's sluice effectively by splashing the water in the night time and assessing the way the light reflects off the surface – the level of reflection corresponding with the saltiness of the water allowing him to ascertain whether it is too late to let the irrigation water in to rice paddies of his own hamlet. Mr L cares too deeply about his rice babies to let their fate be decided by the complex and hard to understand technological equipment and scientific models of the young engineers and adapts his methods. We care too deeply about the outcomes for climate change adaptation to leave our assessments to the 'scientific' and developmentalist models of classic monitoring and evaluation literature, with its indicatorist culture that cannot (or will not) pick up on the why and how of adaptation beyond the modelled theory of change. But we care too deeply, also, to leave our scholarship as a mere critical commentary on the failure of science. What then, should we do? We find hope and possibility in Puig de la Bellacasa's words:

> *"…while a critical stance can bring attention to such matters as who cares for whom, to what forms of care are prioritised at the expens of others, a politics of speculative thinking also is a commitment to seek what other worlds could be in the making through caring while staying with the trouble of our own complicities and implications." (204)*

This politics of speculative thinking that Puig de la Bellacasa invokes is supposed to push us to think with others (human and more than human) and to dissent from within our own commitments, as a kind of noninnocent thinking that resides, entangled, somewhere between the critical and speculative stance, where other worlds are in the making. What other worlds are in the making, as we attempt to write an affirmative political ecology of climate change adaptation interventions in Thai Binh province? Can we be intentional about those worlds that we are somehow evoking and perhaps invoking as we try to stay with the troubles of our cares and complicities as scholars?

Mattering the world: Care-full political ecology and thinking with design

The water-related climate change adaptation interventions of Thai Binh literally matter – that is, they matter the world in certain ways as they imagine new worlds of infrastructure and practice and try to implement them. But they do not matter the world as they were expected to – and evaluation and monitoring practice must take account of that. As McKinnon (2011) notes in her study of development practitioners in northern Thailand, development interventions always make a difference, but they do not always make the difference they were designed to. In thinking about how our matters of care come to literally matter the world, we take some inspiration from Arturo Escobar in his new book *Designs for the pluriverse: Radical interdependence, autonomy, and the making of worlds*. He quips, following Brown (2009)

that 'design has become "too important to be left to designers"' (as cited in Escobar 2018, 2). He insists that most policy design thinking (and, presumably, its monitoring and evaluation) is coming from the 'same epistemic and cultural order that created the problems in the first place' (34) and is not happening fast enough or to the degree of purposefulness required, 'if we heed the criteria of climate change scientists and activists' (34). For Escobar, design for climate change adaptation is most decidedly not just about the top-down design and implementation of sluices and irrigation, water testing practices and protocols, but rather is a process

  "…eminently user centred, participatory, collaborative, and radically contextual; [it would] seek to make the processes and structures that surround us intelligible and knowable so as to induce ecological and systems literacy among users; and so forth." (Escobar 2018, 35)

  For Escobar, rethinking design in the multiple reality situation he calls the 'pluriverse' requires us to 'attempt to construct alternative cultural visions as drivers of social transformation through design' (Escobar 2018, 35), which is understood as a situated and interactive practice. Escobar, well known for his critique of even participatory development practices, seems to be trying to re-enter the fray around this deep matter of concern that has informed his life's work. How do we design for change without the teleology of development, where somehow we are all expected to end up at the 'right' end of a linear historical queue (Massey 2005)?

For Escobar, design thinking holds more promise than development. In design, we still do not quite know what the outcomes will be or how we will know exactly if it is working – but at least we know we do not know and we build that in to our process of change.

  The characteristics of thinking with design differ from those of the development indicatorism that has so far characterised monitoring and evaluation. While a lot of mainstream monitoring and evaluation tend towards clearly articulated outcomes with appropriately matched indicators that measure achievement, design thinking and practice requires a back-and-forth experimental approach to change that is ultimately quite different from that of scientific method. It does, however, match quite closely to the kinds of back and forth feedback loops illustrated in the embodied knowledges and climate change adaptation practices of the farmers described above. Thinking with design allows for multiple knowledges and even ontologies, if we work to practice it in decolonising ways:

  "As designers we are always part of not only the design process – but the very design itself. Indeed, in many Western research paradigms – based on a concept of fully objective knowledge – the relational is viewed as bias while for Indigenous methodologies the relational is a central aspect of the methodology itself." (Barcham, forthcoming)

  In this work Manuhuia Barcham is using Indigenous modes of storytelling as design method, where storytelling is a critical method that requires a listener and a response – a kind of back and forth

co-design that co-creates knowledge. For others writing in the community economies tradition, terms such as negotiation, becoming-in-common, and learning to be affected capture these two way experimental processes (Cameron 2015; Cameron, Gibson & Hill 2014; Cameron, Manhood & Pomfrett 2011; Dombroski 2018; J. K. Gibson-Graham *et al.* 2013; Hill 2015; Roelvink 2010, 2015a; Roelvink & Gibson-Graham 2009).

What does all this mean for an affirmative political ecology, in particular, around adaption interventions for climate change affected communities? What it means, for us, is that we move beyond the objective observer critical stance and 'muck in', to use the words of Wright (2017), or 'get naked' with our scholarship, to use the words of McKinnon (2017),or to 'stay with the trouble' (Haraway 2016; Puig de la Bellacasa 2017). It means to take a deliberate stance that goes beyond the critical, and to embody new kinds of scholarship that works to 'think with' and 'dissent within' (Puig de la Bellacasa 2017; Dombroski 2018) our embedded networks of place and space, whether that is our village, our workplace, our research infrastructure, our political and economic systems.

While our current project is still in its infancy, we have committed to not just writing a political ecology of exposure and critique, but to putting in the care-labour of thinking in the 'affirmative'. In this and other projects,[3] it includes developing strategies for the inclusive design and implementation of monitoring and evaluating climate change adaptation intervention that not only take account of multiple knowledges, including that of the local, the body, the place-based, but co-design with these actors and stakeholders. If we can find ways to collect and communicate this diverse knowledge and realities with methods (and even metrics) to research and government organisations in Thai Binh and beyond, we would hope to say we have managed to produce something like affirmative political ecology. In turn, we hope that this affirmative political ecology might produce something else: new possibilities for becoming and transforming in a climate-changing world.

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Endnotes

1. We are both members of the Community Economies Research Network; Kelly Dombroski is also a member of the Community Economies Collective.

2. Of course, we might draw on the long tradition of participatory community development and participatory action research that has informed more formative types of monitoring and more deeply responsive practices of evaluation. Indeed, our first foray into this work was using participatory methods in conjunction with the sustainable livelihoods framework (Chambers and Conway 1992), an approach which we have continued to pursue in other parts of this work. Our focus here, however, is on political ecology and what passes for normal critique in the critical and less applied disciplines of social science.

3. See also Kelly Dombroski's collaborative work with the urban farm, Cultivate, for more of this (www. cultivatingurbanwellbeing.wordpress. com), and Dombroski, K., Diprose, G., Conradson, D., Healy, S. & Watkins, A. 2018. When Cultivate Thrives: developing criteria for community economy return on investment. Milestone Report 1, National Science Challenge 11, Building Better Homes Towns and Cities. University of Canterbury, Christchurch.)