Transformative Connections: critical research agendas linking Environmental Justice and Transformations to Sustainability

<u>A background paper for Environmental Justice 2019: Transformative Connections</u>

Adrian Martin, Teresa Armijos Burneo, Vasudha Chhotray, Brendan Coolsaet, Neil Dawson, Gareth Edwards, Roger Few, Nicole Gross-Camp, Iokine Rodriguez, Heike Schroeder, Mark Tebboth, Carole White.

1.   **Introduction: a futures agenda for Environmental Justice**

The main aim of this background paper is to stimulate further discussion about how Environmental Justice (EJ) scholarship can fruitfully engage with Transformations to Sustainability (T2S) scholarship. What are the main insights that can contribute to this cross-fertilisation and what are the important emerging research agendas that can develop these insights? We see some good reasons for seeking to make these connections between EJ and T2S. First and foremost, both are facing the challenge of envisioning and seeking progress towards just and sustainable futures. T2S scholars face the challenge of moving from analysis of how past transitions played out to theorising how to govern future ones, including how spaces of alterity open up and can be nurtured (Newell 2015, Patterson et al. 2017, Feola 2019). EJ scholars have tended to prioritise analysis and action in respect to actually existing environmental injustices, what Sen (2009, p.21) described as "the importance of the prevention of manifest injustice in the world, rather than seeking the perfectly just". But whilst few think it is realistic to expect a 'perfectly just' future, there is growing belief in the value of visioning socially and ecologically just futures (e.g. Klein 2018) and in finding the ontological space that makes such vision possible (e.g. Haraway 2016). Work to develop (plural) visions of just and sustainable futures brings a normative dimension to the heart of T2S scholarship (Holsher et al, 2018). This is increasingly explicit, for example in attempts to integrate justice parameters alongside planetary ones to envision 'safe and just spaces' for humanity (Scoones et al. 2018) or alternative futures that embrace radical ecological democracy (Kothari 2016). Correspondingly, EJ research has been extended to consider how to integrate ecological and social parameters of justice and sustainability, for example exploring the potential for unification through a capabilities framing which sees communities rather than individuals as the subject of justice (e.g. Schlosberg and Carruthers 2010).

Secondly, in seeking to define and understand the mechanisms of progressive change, both the EJ and T2S communities are seeking to understand what constitutes transformation and how typically non-linear responses to social-ecological crisis come about and can be governed. Indeed, one of the key insights from EJ scholarship and movements is that a commitment to revealing and addressing injustices is itself a critical way of distinguishing reformist from transformative agendas or, put another way, that an orientation towards justice is a defining pillar of transformative thinking and practice (Temper et al 2018). Thirdly, both EJ and T2S are taking a critical turn, seeking to understand resistance to transformative change in terms of multiple dimensions of power exercised at different scales. Transitions and transformations research is yielding insights into how change is resisted at the level of incumbent regimes (Geels et al, 2014; Newell et al. 2018) but there is a call to also 'zoom out' the focus in order to explore the obstacles posed by capitalism as a global political economy,

and by its manifestations in states, institutions and cultures (Feola, 2019). The multi-dimensional typology of injustices (especially distribution, procedure and recognition) that has served much EJ scholarship has encouraged a richer vein of thinking around questions of recognition and discursive power than is currently found in T2S work, including recent work on decolonial approaches that helps define the ontological and epistemic challenges of opening up spaces for just visioning.

2. Doing transformative EJ research

Perhaps the greatest and most persistent debate within modern environmentalism has been that between reformist and radical approaches. Does the pursuit of an ethical and sustainable relationship with nature necessitate working with or against prevailing political economies and worldviews? This long-lived debate is relevant to environmental justice scholarship due to its central questions about whether or not hierarchies based on race, class, gender, knowledge, religion and species are foundational to currently constituted capitalism and capitalist states. In other words, can environmental justice really be achieved without a change in the system that structures the connections between people, states, markets and nature? In its more recent manifestation, this debate has engaged with theories related to the transformative change that is now widely accepted to be necessary, with perspectives diverging around whether technological and market innovation can themselves be radical, or whether systemic, structural change is needed (Newell, 2015, Scoones et al., 2018, Patterson et al., 2017, Temper et al., 2018).

This debate between reformist and transformative change has become salient within recent EJ scholarship (Pellow, 2017, Temper et al., 2018, Pulido et al., 2018, Holland, 2017) and we see at least two related reasons for this. Firstly, the zeitgeist of a climate and biodiversity emergency and secondly, the associated belief that reformist responses have not and cannot produce a (fair) way out of this crisis. For example, the recent Global Assessment on Biodiversity and Ecosystem Services (IPBES 2019) presents a picture of unprecedented rates of extinction and degradation foreshadowing catastrophic collapse of human life support systems. As with climate change, we have moved from fear of future crisis to living with the costs, such as the 23% of terrestrial area already categorised as degraded to the point of reduced productivity, or the $235 billion to $577 billion in annual crop losses already resulting from pollinator decline (IPBES 2019). Such scientific evidence is reflected in activism such as Extinction Rebellion and the recent school strike movement, both of which demand that key actors declare a climate and ecological emergency.

Embedded within these and other damaging changes to global commons are fundamental inequalities that mean the distribution of costs and benefits fall unevenly across and within global populations. For example, at an international level, much of the worst impacts of climate change are likely to be felt in countries that bear only minimal responsibility for creating the problem in the first place (Parks and Roberts 2010). The recent global demonstrations by school children about the inability or unwillingness of decision makers to decarbonise also highlight the ways in which future generations currently feel a sense of disempowerment that is threatening their future. However, such inequalities are not just felt between generations and across nations. Within countries it is often the poorest and most vulnerable populations who bear the greatest burdens for the ongoing environmental degradation, and who have the least power to effect change. For example, economic growth, environmental and population pressures, as well as changing land use patterns combine to

threaten the way of life of more than 500 million pastoralists worldwide (UN decade of ecosystem restoration).

And yet incumbent regimes continue to resist change. In India, for example, the re-election of the BJP is hardening public and political discourse legitimising extractive growth and marginalising those struggling for alternative development pathways. At the same time, Global Witness (2018) highlights violent resistance from 'irresponsible businesses' with 2017 being the worst year for the killing of land and environmental defenders, particularly in Latin and South America. These examples show the immense challenges we are facing today, including elite actors whose interests are often misaligned with and resistant to those of less powerful groups (Geels, 2014, Healy and Barry, 2017, Newell et al., 2018, Schroeder 2014). Declaring an 'emergency' might be a way to open up cracks in these incumbent regimes but it is imperative that such a move also be combined with a commitment to social justice or else it could justify undemocratic and unfair forms of transition in which those who are least responsible bear the greatest burden.

Reformist approaches to such challenges are criticised in two fundamental respects. Firstly, they have failed to generate sufficient and timely change and, secondly, they have led to pathways of change that have been set by and for powerful groups, reproducing current inequalities (Dauvergne, 2016). Examples of the latter include the burden of unemployment arising from imposed energy transitions (Stevis et al., 2015), establishment of protected areas that exclude local people from important economic and cultural practices (Adams et al., 2010, Fairhead et al., 2012, Martin 2017), conflicts arising from renewable energies such as wind power (Frate et al. 2019, Avila 2018), or the switch to lithium, uranium or bio-based fuels hastening new frontiers of extractivism with potentially unchartered forms of dispossession that are still to be understood (Muradian et al., 2012).

Reformist environmentalism has been defined in terms of its acceptance of economic growth as a viable long-term policy goal (Dryzek 1990), acceptance of current distributions of power (Fraser 1995) and more generally as acceptance of the current phase of capitalism as the prevailing order. Whatever litmus test is applied, reformist environmentalism is more optimistic about the pursuit of change through existing institutions, embracing states, finance and newly 'responsible' businesses as partners for promoting change, rather than, or in parallel with, seeking to redistribute their powers. Critics argue that this isn't working. The drivers of the climate and biodiversity emergencies continue to be encouraged by existing regimes and are growing, not falling – for example, massive new investments in fossil fuel extraction in India and China (Davis et al. 2010) underline the point that barriers to transformation go beyond technological-infrastructural lock-ins and are rooted in systemic interests and powers. This is further evidenced by rising economic inequalities, with the wealthiest 1% capturing twice as much of global economic growth than the bottom 50% between 1980 and 2016 (Alvaredo et al. 2018). From the vantage point of such national and global statistics, states and corporations show few signs of becoming genuine partners for equality.

However, there remains a case for working within the capitalist system, in partnership with its currently powerful stakeholders. History proves that seemingly stable regimes can undergo rapid and profound change without the elimination of capitalism, such as the fall of apartheid in South Africa. Transformational change is hard to see coming, tends to follow non-linear patterns of punctuated equilibrium (Westley et al. 2011) and we should not necessarily see the stability of

existing regimes as evidence that change from within is not possible. Indeed, it can be argued that there has been some success in incorporating environmental justice concepts and objectives *within* formal institutions – e.g. within the state administration in the USA (Holifield 2004, Harrison, 2014). On the other side of the debate, working with state institutions has been shown to result in co-option, weakening of the EJ movement and reversion to business as usual (Agyeman et al. 2010, Pulido et al 2016, Pellow 2018).

Between these more polarised views, the T2S research community offers a middle perspective in which transformation pathways are characterised by multi-track activity spaces in which reformist and radical types of action are complementary and combine across social, temporal and spatial scales to cumulatively enable transformative change (Scoones et al., 2018). Geels (2014) for example, concludes that we need to work to develop new niches of alternative practices but that these won't gain traction if we don't also work to more directly weaken the regimes that resist them. Rather more reluctantly, Newell (2015) argues that we cannot avoid the historical phase of capitalism we are actually in, and that the history of capitalist transformations shows us that the finance sector has been, and could again be, a powerful partner for transformative change. Arguments for multi-track approaches to just transformations provide a useful reminder that we should not be confident of being able to distinguish 'reformist' from 'transformative' change (Temper et al. 2018). What appears as the former may be seen in hindsight to be part of the latter. Perhaps the research agenda should not be about the choice between clearly demarcated types of activities, but about how complementarities can be better understood, and how we can better recognise and support the enabling factors that can make change transformative, including, for example, strong public dialogue at multiple levels.

3. Connecting EJ and T2S: in practice and in theory

There is increasing academic interest in bridging these two bodies of work and exploring boundary concepts such as 'just transitions' and 'just transformations'. For some, the need for connection arises from the dangers of unjust transformation described above – a moral preference for more just over less just futures. For others there is also a more instrumental reason for justice-oriented transformation, for example because progress towards empowerment of marginalised groups is a fundamental enabler of game-changing and enduring environment and development decision making (Holland 2017, Scoones et al. 2015). One of the challenges that Feola (2019) poses for the T2S community is to better understand 'the sustainability of sustainability transitions', a challenge that the EJ community no doubt has something to say about. Before returning to theoretical connections we take a closer look at the (lack of) connections in current practice.

i) Connections between EJ and T2S in practice

Despite inclusion of progressive social goals within major global platforms for tackling environmental crisis, notably the UNFCCC, UNSDG, UNCBD and IPBES, insufficient attention to environmental justice remains the norm, exemplified by failures to prevent severance of local communities from their place-based practices or to include local institutions in governance. Three examples illustrate this point. First, the global Reduced Emissions from Deforestation and forest Degradation (REDD+) program includes a set of social safeguards to ensure the full and effective participation of local

communities, their free, prior and informed consent, equitable benefit sharing and respect for customary tenure systems (Turnhout et al., 2016). However, in practice REDD+ has reproduced existing power structures (Myers et al., 2018), restricting power over program design and implementation to central state agencies and international actors, with limited recognition or empowerment of local actors (Dawson et al. 2018). This failure to address underlying power relations has resulted in limited support among Indigenous Peoples and grassroots social movements (Bayrak and Marafa, 2016) and has been linked to failures to produce demonstrable environmental gains (Sikor and Cam 2016).

Secondly, so-called 'sustainable' agricultural intensification policies continue as a major strategy under the Sustainable Development Goals (Rockstrom et al 2017). Intensification efforts commonly consist of top-down, centralised plans to introduce modern crop varieties (Collier and Dercon 2014) and, like REDD+, these programs tend to reproduce incumbent powers and institutions, prioritising formal private property rights over customary and communal tenure; and profit over local food sovereignty and security (Dawson et al 2019 Rasmussen et al. 2018). Agendas are influenced by dominant agri-business corporations whose interests continue to lie in high input systems (Matson et al. 1997) and who actively resist more radical alternatives such as those advocated by *Via Campesina* (Chaifetz and Jagger 2014) or more innovative approaches to climate smart agriculture (Newell et al. 2018).

Thirdly, Protected Area conservation, is a sector that has seen growing emphasis on the need for social equity during the past two decades (Schreckenberg et al. 2016) but where dominant, exclusionary practises have also held firm on land and at sea (Zafra-Calvo et al 2019, Brockington and Wilkie 2015). Rather than recognising territorial claims and local institutions governing natural resources, trends towards more equitable conservation have focused on issues like increased sharing of tourism revenues, compensation and alternative livelihoods, leading to claims that concepts like equity are being co-opted to support business as usual (Tumusiime and Vedeld 2018). And yet a growing body of evidence indicates that alternatives such as provision of territorial rights of IPLCs, and enabling local stewardship, are the most effective, ethical and cost-efficient way to conserve or restore habitats (Schleicher et al 2017, Reyes-Garcia et al. 2019). There is thus a twinned agenda, to better understand how such justice-oriented approaches can underpin transformations to sustainability, and to understand the mechanisms by which they are resisted.

Whilst these three examples expose current frustrations of seeking reform within mainstream policy frameworks, there are more positive examples of working within state-based systems and with private sector partners. These include the shifts cemented by the 2015 Paris Agreement toward bottom-up approaches (Kuyper et al. 2018a), the emergence of an ever-growing non-governmental sector active in sustainability and climate change governance communities (Kuyper et al. 2018b) and transformations occurring in cities as they build innovative partnerships that foster entrepreneurship for change (Burch et al. 2016). In the private sector, insurance companies have begun to take account of ESG (ethical, sustainable and governance) benchmarks and divesting from fossil fuels. A growing number of insurance companies in Europe have pulled back from insuring coal companies (Braungardt et al. 2019). These are cracks in the walls of inertia that point to transformations of societal systems to transcend the lock-ins to unsustainable pathways (Schroeder et al. 2013).

There is not yet a well-established theory of transformations to sustainability (Geels 2002, Feola 2015). However, there are some significant conceptual approaches arising from evolutionary economics (socio-technical transitions), ecology (social-ecological systems) and political ecology (just transformations). Whilst these different traditions are all beginning to engage with the constraints of power asymmetries (e.g. Geels 2014, Westley 2011), the latter more clearly positions power centrally, as well as the links between (procedural) justice and agency (e.g. Scoones et al. 2018). Social-technical transitions approaches focus on how innovative alternatives are generated and how they can be nurtured to create and open up the 'cracks in the walls' just referred to. Commonly referred to as a 'Multi Level Perspective', the approach conceives 'niche' scale innovations gaining traction in combination with shifts in sectoral 'regimes' such as agri-business or energy, playing out in the context of more slowly shifting 'landscapes' of societal structures: "In a nutshell the core logic is that niche-innovations build up internal momentum (through learning processes, price/performance improvements, and support from powerful groups); changes at the landscape level create pressure on the regime; and destabilisation of the regime creates windows of opportunity for the diffusion of niche-innovations" (Geels, 2014, p.23). Social-ecological systems approaches similarly adopt a multi-level perspective in which change is driven by innovations that are disruptive to incumbent regimes, but with stronger emphasis on understanding shifts in the feedback systems connecting social and ecological sub-systems and, in particular adaptive capacity: "the capacity to create untried beginnings from which to evolve a fundamentally new way of living when existing ecological, economic, and social conditions make the current system untenable" (Westley et al. 2011, p.763).

An emerging political ecology of transformations is distinguished by the central role identified for social justice concerns such as the imperative to redistribute power (Patterson et al 2017). Within these justice-oriented approaches to transformation, some of the key connecting themes between EJ and T2S are i) the role of procedural justice in empowerment (Schlosberg et al. 2017, Holland 2017), opening up spaces of opportunity that enable alternative practices (such as the commons) to emerge (Scoones et al 2018); ii) the identification of discursive power as a means of framing agendas, imposing hegemonic/colonial epistemologies and evaluation methods whilst silencing, weakening or co-opting alternative knowledge, worldviews and values (Leach et al. 2010, Newell 2015, Beland Lindahl et al. 2016), iii) the role of tension, resistance and conflict across actors and levels/scales, in shaping the dynamic pathways of transformation (Scoones et al. 2015; Temper et al. 2018); and iv) the need for differentiated understanding of the effects of transformational change, ensuring that costs and risks don't enhance vulnerabilities for some people (Pelling et al 2015; O'Brien and Sygna 2013; Stevis and Felli 2015). In the following section we consider some of the research agendas arising from these connecting themes, and emerging contributions from EJ scholarship.

4. EJ insights for just transformation: research agenda

i)   *Diversity and Decolonisation.*
EJ scholarship has an empirical tradition of critical pluralism (Schlosberg 1999), recognising both the moral imperative and instrumental benefits of giving voice to diversity. The theoretical tradition,

however, has been less diverse (Reed and George 2011; Lawhon 2013), with conceptual frameworks largely drawing on liberal justice theories and anglo-european critical theory (see Schlosberg 2007). Recent work has therefore started to enrich EJ work through Southern scholarship, especially Latin American decolonial theory on the harms caused by the project of modernity in the Global South (Dussel 1985; Escobar 1998, 2003, 2010; Quijano 2000; Leff 2001, 2003, 2004; Santos 2008), emphasising the colonial roots of environmental injustices (Ulloa 2017; Alvarez and Coolsaet 2018; Pulido and De Lara 2018; Rodríguez and Inturias 2018; Vermeylen 2019). This follows a broader trend highlighting the need to speak to a more diverse set of social categories of difference facing injustices (Holifield, Porter, and Walker 2009; Sikor and Newell 2014; Pellow 2018).

This critical EJ agenda argues that as long as environmental justice is driven by worldviews and knowledge processes from the Global North, environmental justice scholarship is at risk of "coloniality of justice" (Alvarez and Coolsaet 2018: 2), a series of processes through which non-Western conceptions of justice, nature, difference, culture or identity are marginalized. Through its focus on coloniality, this line of work can inform transformations to sustainability, for example highlighting the dangers of a coloniality of future visioning (Feola 2019). Decolonial scholarship can make visible the different colonial mechanisms and values that define the relationships between people and nature in contemporary post-colonial societies. These mechanisms include a politics of recognition based on assimilation into hegemonic structures and institutions, persistent forms of epistemic injustices and the "colonization of life" (Shiva 1993: 279) by reducing nature to an exploitable resource with only instrumental value.

From this perspective, different research agendas emerge. Research for just transformation will more thoroughly address the cases of those individuals, communities and ecosystems that bear most of the environmental burdens as a consequence of coloniality, such as those groups who are most at risk from disasters partly as a consequence of colonial establishment of development pathways that continue to shape present day institutions and vulnerabilities (Barclay et al. 2019). Inter-epistemic studies (Escobar 2014, 21) and intercultural dialogues are approaches that can play a role in the difficult task of challenging hegemonic worldviews and knowledge systems that sustain them, hence developing compelling critiques of scientific inquiry for environmental conservation without, at the same time, playing into the hands of deliberate anti-science agendas. By adopting such methods, just transformation scholars can question the universal relevance of their theoretical frameworks by asking 'whose visions are represented' and by making visible currently marginalised visions of development and alternatives forms of knowledge.

ii)   Connecting multiple dimensions of change: a capabilities perspective
The 'capabilities approach' to justice, developed by Amartya Sen and Martha Nussbaum, has become a prominent alternative to traditional economic-based assessments of development, and has been proposed as a useful framework through which to theorize and understand justice more broadly (Nussbaum and Sen, 1993). More recently, it has been enthusiastically adopted by scholars working on a variety of fields at the intersection of environment and development, including by scholars who have proposed various capabilities-based ideas as a theoretical edifice within which to understand and frame EJ demands (Holland, 2008, 2014; Day, 2018; Schlosberg and Carruthers, 2010; Schlosberg, 2012; Ballet et al., 2013). In a recent paper, for instance, Edwards et al. (2016) argue that the shift towards capabilities-based approaches to EJ necessitates a much more rigorous

attention to the relationship between justice and the related concept of 'well-being'. Other scholars have developed similar arguments in the context of debates about capabilities theories more broadly, though not specifically focussing on how EJ scholars have applied this theory (O'Neill, 2008; Arneson, 2013). In this engagement with capabilities and well-being, EJ remains committed to a broad conception of the range of environmental injustices and the scales at which they operate. However, questions remain about just how transformational capabilities-based approaches to justice can be, given their focus on minimum social requirements for justice and their corresponding lack of attention to either ecological limits or other normatively-defined limits on possessions, consumption or the like (Robeyns, 2016; Edwards et al., in preparation).

iii) _Environmental justice and conflict transformation_

Reporting, analysing and participating in environmental conflicts has been a core part of the EJ agenda (e.g.Temper et al 2015). At the same time, justice takes a prominent role in peace studies, notably within conflict transformation theory. Here, there is an important body of scholarship that considers justice as central to the pursuit of transformation. The basic premise of conflict transformation theory is that conflict is rooted in situations that are perceived as unjust, and that by unearthing and making these injustices visible, conflicts become catalysts for social change (Dukes 1996, Lederach 1995). Thus, while other more widely used approaches to conflict tend to focus on reaching agreements and overcoming a crisis situation (forms of conflict settlement), conflict transformation engages with a much bigger question: the pursuit of justice in society through the rectification of wrongs and the creation of right relationships based on equity and fairness (Botes 2003, Lederach 1995). Similar to much of the work on transformation cited above, this challenge is not taken lightly as it necessitates efforts to bring about structural change in incumbent legal, political, economic and cultural frameworks and, ultimately, the redistribution of power.

The work of Lederach and others has not considered the justice-conflict connection in relation to transforming environmental conflicts. However, work has begun on this research agenda, with attention being paid to conceptualizing the role of power in socio-environmental conflicts, both as a tool of repression and agency, as well as to the roles that academia can play in helping to develop local capacities to transform environmental conflicts and achieve justice (Rodriguez and Inturias, 2018). There is still much to be learnt about the transformative strategies being used by movements in the pursuit of environmental justice. A conflict transformation lens can help understand how justice is achieved, or not, during environmental justice struggles, through a close examination of both the hegemonic and transformative power strategies used during the evolution of environmental conflicts. This can inform and learn from sustainability transitions scholarship that has tended to follow Giddens in seeking to understand the relationship between structural powers and human agency within a multi-level perspective (Geels 2014). Furthermore, doing this analysis with those experiencing environmental injustice can help them learn from the strategies used and the limitations encountered in the process to re-strategize and continue working towards the pursuit of justice.

iv) Vulnerability and Wellbeing

Radical transformative change is not an easy path. Often, the conditions that create vulnerability are so entrenched that they hinder transformation from occurring (Bene, 2012). For example, evidence from around the world has shown that conservation and poverty reduction initiatives operate within dominant models of practice that all too frequently reproduce and enhance the vulnerabilities of the

poorest and most marginalised in society (Daw et al., 2015, Martin 2017, Woodhouse et al 2018). The success of the T2S agenda will therefore require better understandings of the underlying processes of vulnerability and employ sophisticated conceptions of wellbeing for development (McGregor, 2014). One simple but important lesson here from EJ is the need to place social differentiation and disaggregation at the heart of any analysis of future vision and transformation. This also points towards research methods that can consider these differences and in the process make a difference to those most affected.

Transformation cannot be assumed to be value and power neutral. This is important for three reasons. Firstly, different groups and individuals within any social community will vary in their values and objectives for development. Their goals for 'transformation' are therefore likely to vary and potentially conflict with each other. Secondly, how different people access decision and policy-making processes, capital, and resources needs to be examined more closely as well as how policies aimed at transformation are perceived and experienced by different social groups. Thirdly, transformative change will inevitably involve trade-offs that often disproportionately affect already marginalised or vulnerable groups. Consequently, transformation does not necessarily lead to improvements in wellbeing for all (Coulthard, 2012). However, assessing outcomes in terms of impacts on wellbeing can be tricky, for example because those that have developed coping strategies to deal with change over the medium to long-term, also adjust their aspirations and wellbeing goals (Clark, 2010; Coulthard, 2012). Furthermore it is necessary to consider trade-offs involved across both temporal and spatial scales, for example where apparent gains in local justice or sustainability are achieved by shifting problems and vulnerabilities elsewhere – the focus of an emerging literature on telecoupling and justice (Boillat et al. 2018, Corbera et al. 2019).

Like 'conflict', vulnerability and wellbeing are particularly fruitful areas of connection to examine justice and transformation. Insights from EJ research have exposed the particular ways in which vulnerability and the pursuit of wellbeing are produced (and often reproduced over time) leading to unevenly distributed capabilities. For example, analytical frameworks for understanding vulnerability to hazards may be applied to transformation to understand the different implications of change for different people. A justice-oriented framework will consider vulnerability with reference to capabilities and wellbeing, including empirical studies that allow a much broader and self-determined perception of what matters in life, how well or badly people feel they are doing, and the possible implications and entry points for transformation. However, whilst a focus on capabilities and/or wellbeing clearly enables a more holistic and nuanced understanding of how different people may be affected by change, it can be silent on issues of process and how local people need to be involved in all its aspects. In other words, if we are to address vulnerability within a transformation agenda, we must not only understand who is affected by change, and how, but also the distributions of power reflected in structures of governance and the ways in which those most affected can be enabled to challenge these power structures. This is where bringing insights from EJ, vulnerability and wellbeing together will be particularly helpful. The EJ community has developed and applied different methodologies that aim at understanding vulnerability and wellbeing while pushing for a radical transformative change agenda. This requires attention to how we understand, describe and characterize vulnerability but most importantly, generating the capacities to tackle it.

v) Assessing just transformation

Transitions and transformations scholarship has recently incorporated ideas about how we can benchmark progress. Justices related to ecological outcomes have been considered in terms of thresholds for planetary boundaries (Röckstrom et al. 2009) and subsequently social boundaries, incorporated into more development and justice oriented approaches to transformation (Patterson et al. 2017; Scoones et al. 2018). A big challenge for developing metrics for assessing transformation is that the terms 'transformation' and 'sustainability' mean different things to different people, as implied by our earlier discussion of radical versus reformist approaches. Even within the field of environmental change scholarship and practice, meanings of transformation vary between the idea of fundamental systemic changes as an adaptation to environmental limits and feedbacks (reflected in e.g. Folke et al., 2010; Dilling et al., 2015) to a more emancipatory focus on overturning structural relations that maintain poverty and deny the prospect of sustainability (e.g. Pelling 2011, Ribot 2011). A preliminary agenda, for researchers and practitioners alike, therefore has to be to characterise quite what are the parameters of interest: what would transformation actually entail in the context or action being considered, and how does that interconnect with questions of justice?

One approach to this characterisation problem is suggested in Few et al. (2017), specifically in relation to climate change adaptation, but broadly applicable to any action or intervention relating to sustainability transformations. The proposal is to interrogate an adaptation action in order to characterise different aspects of transformation in terms of mechanisms of change, target outcomes and the object of transformation. The second and third are key in relation to justice and equity.

In interrogating target outcomes, the authors ask the question 'How does the action relate to the drivers of (climate) risk?' and offer three options for the answers:
- Instrumental = focuses on addressing risk as an environmental problem;
- Progressive = targets reduction of differential social vulnerability to risks;
- Radical = tackles underlying causes of social vulnerability to risks.

The first, instrumental transformation, is narrow in scope, and focuses on largely technical responses to addressing the generalised impact of climate change. Progressive transformation retains a focus on particular responses to climate change, but seeks to do so through a deliberate social targeting function for the most vulnerable, employing non-technical actions such as mechanisms to enable poorer people to access adaptation opportunities. Radical transformation is widest and most ambitious in scope in terms of seeking to tackle and change the underlying social structures and power relations that reproduce vulnerability and undermine capacities to adapt. Clearly the implication here is that dimensions of justice become increasingly more explicit from instrumental through to radical forms in how transformation actions are articulated and understood.

Few et al., (2017) further suggest that transformation in adaptation can be distilled into two main interpretations around the question of what is the 'object' of transformation – i.e. is the change limited to overcoming an environmental risk or is it a means to generate wider impacts beyond that risk problem?:

- The first interpretation, normally referred to as 'transformational adaptation', is built around an argument that 'incremental' adaptation that seeks to modify existing human-environment relations will be insufficient for society to manage the consequences of climate

change (e.g. Kates et al, 2012; Klein et al., 2014; Dilling et al., 2015). It argues instead that fundamental step-changes in how we utilise and manage resources, where and how people live, and how we interact with nature are required to avoid catastrophic impacts.

- The second, for which the authors use the term 'transformative adaptation', argues that adaptation both requires and presents an opportunity for society to fundamentally challenge and change the relations of social power and the socio-structural constraints that play a large part in perpetuating multi-dimensional poverty, as well as deepening vulnerability (e.g. O'Brien, 2012; Tschakert et al., 2013; Eriksen et al., 2015; Gillard et al., 2016). The focus tends especially to be on the vulnerability of those more marginalised from power and with least secure access to resources.

Again, the justice dimensions are writ large in both forms, but to differing degrees, with a much stronger focus on equity through transformation in either activities designed to be transformative in this sense or in an interrogative research lens applied to the analysis of environmental actions. The key point being argued here then is that how transformation is conceived will inevitably shape how researchers approach their analysis of the conditions and outcomes of change processes. Once the basis of that conception is made clear, the vagaries of the term can be set aside, and it may be possible then to select more tangible (though nonetheless still challenging) benchmarks of outcome over time such as changes in wellbeing measures.

5. Conclusion

In *The State of Exception*, Giorgio Agamben (2005) warns how states exploit 'crisis' and 'emergency' to legitimise undemocratic policies. We currently face a crisis for which failure to act decisively poses enormous dangers and injustices. But at the same time, there is the danger that powerful actors seek to justify unjust policies on the back of the 'exceptional' circumstances that are faced. Thus far, a community of scholars working on transitions/transformations to sustainability have focused more on the first of these challenges, on achieving scale and depth of change, whilst the EJ community has perhaps made more progress on the second, on pursuing just change. In this initial attempt to review some of the interconnections between these agendas, we notice some interesting areas of emerging and ongoing research, including those on decoloniality, conflict transformation, capabilities, vulnerability and on assessing progress towards transformation. Across these areas of crossover we see something of a pattern wherein EJ researchers examine and reveal the nature of incumbent regimes and the power structures that maintain their hegemony. This involves extending the understanding of the range of mechanisms by which regimes reproduce injustices and resist change, for example by revealing the ontological and epistemic forms of domination that characterise coloniality. More generally, it involves investigating, revealing and responding to the underlying causes of resistance that lie in unequal distributions of power. This is very clear for example in the consistency of themes found in work on environmental conflict transformation (where a justice approach necessitates addressing underlying power inequalities), work on vulnerability (where root causes of vulnerability lie in structures of power) and work on assessment of transformation (where justice is seen to inform the more 'radical' parameters of change). This attention to power, both as source of discrimination and oppression, and as transformative through capability and agency, is something that EJ can bring to the transformations table. On the other hand, transitions/transformations scholarship has made more progress understanding the patterns

and dynamics of change, responding to a previous limitations in futures and scenarios research. Some of this understanding, for example about competing pathways, punctuated equilibrium, and multi-track and multi-level dynamics, is rightly beginning to enter into environmental justice literature as we collaborate to identify pathways towards more just futures and sustainable futures.

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