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Exploring power and procedural justice within climate compatible development project design: whose priorities are being considered?

Benjamin T. Wood[1], Andrew J. Dougill[1,] Claire H. Quinn[1], and Lindsay C. Stringer[1]
[1]Sustainability Research Institute, School of Earth and Environment, University of Leeds, Leeds, UK, LS2 9JT

Corresponding author email address: ee12btw@leeds.ac.uk

Abstract

Climate compatible development (CCD) is gaining traction as a conceptual framework for mainstreaming climate change mitigation and adaptation within development efforts. Understanding whether and how CCD design processes reconcile different stakeholder preferences can reveal how the concept contends with patterns of socio-cultural and political oppression that condition patterns of development. We therefore explore procedural justice and power within CCD design through a case study analysis of two donor-funded projects in Malawi. Findings show that donor agencies are driving design processes and involving other stakeholders selectively. Whilst considerable overlap existed between stakeholders' 'revealed' priorities for CCD, invisible power dynamics encourage the suppression of 'true' preferences, reducing the likelihood that CCD will be contextually-appropriate and have widespread stakeholder buy-in. Visible, hidden and invisible forms of power create barriers to procedural justice in CCD design. We present five recommendations to help policymakers and practitioners to overcome these barriers.

1. Introduction

Climate change is already making development objectives more difficult to realise (IPCC, 2014b). It represents a double source of inequity because those most adversely affected by it have benefitted least from carbon-intensive development pathways (Ibid.). In this context, climate compatible development (CCD) is proving attractive as a conceptual framework for mainstreaming climate change mitigation and adaptation within development efforts in order to reduce vulnerabilities (Mitchell and Maxwell, 2010). Vulnerability is seen as a function of: exposure to socio-cultural, economic, political and environmental (including climatic) shocks and stressors; sensitivity to these shocks and stressors; and capacities to adapt and respond to them (IPCC, 2014a).

According to the Intergovernmental Panel on Climate Change, climate change mitigation constitutes human action to reduce greenhouse gas sources or enhance sinks (Ibid.). Climate change adaptation commonly denotes anticipatory or reactive actions that enable adjustment to actual or expected climate impacts (Ibid.). In line with human development discourses, development is defined as a function of individuals' and groups' socio-cultural, political and economic freedoms (Sen, 2001).

So far, the operationalisation of CCD has outpaced academic inquiry into the concept. While the CCD literature is growing and research is beginning to critique CCD theory and practice (e.g. through evaluations of CCD outcomes — Tompkins et al., 2013; discourses — Käkönen et al., 2014; and political-economy — Tanner et al., 2014), overall, critical research remains limited. CCD's procedural justice implications have been underexplored and this represents a pressing research gap. Linked to this, there is a scarcity of social justice research that explores how CCD interventions allocate opportunities, privileges, burdens and disadvantages (Schlosberg 2007).

Procedural justice requires that stakeholders can participate in, and have their preferences recognised through, CCD design processes (Ibid.). Participation and recognition constitute the political and socio-cultural pillars of procedural justice, respectively. Participation denotes opportunities to take part in decision-making (Hurlbert and Gupta, 2015), while recognition is achieved when stakeholders' identities, cultures and values are acknowledged and respected throughout CCD design processes (Tschakert, 2009). Participation and recognition share a reciprocal relationship whereby those who go unrecognised are unlikely to be afforded participatory opportunities, while the depth and breadth of stakeholders' participatory opportunities condition whether they command recognition (Schlosberg, 2007). CCD outcomes are more likely to be favourable to those whose views are considered within

decision-making processes, suggesting that procedural justice can create pathways to distributive justice (Ibid.).

Some studies touch upon procedure in CCD design (e.g. Mustalahti et al., 2012; Sova et al., 2015), but systematic evaluations are scarce. Empirical insights from project-level initiatives that explicitly pursue triple-wins for adaptation, mitigation and development are particularly lacking. Power constitutes the networks of societal institutions (formal and informal) and resources that delimit the boundaries and scope of procedural justice opportunities (Gaventa, 2006). Linked to a shortage of tools and frameworks that facilitate their holistic analysis, there is restricted understanding of the relationships between procedural justice and power within CCD design.

CCD professes to be a 'development first' approach (Picot and Moss, 2014). However, limited consideration of procedural justice and power means it is uncertain how projects contend with patterns of socio-cultural and political oppression that condition underdevelopment (Sen, 2001). Considering CCD's procedural justice implications is important because development, mitigation and adaptation outcomes are experienced differently across diverse temporal and spatial scales (Klein et al., 2005). Understanding whether and how different components are prioritised and balanced within design processes can help signpost which individuals and groups will 'win' and 'lose' from them, allowing remedial actions to be taken to target injustices.

This article explores procedural justice opportunities and power within the design of two donor-funded projects that pursue CCD triple-wins in Malawi. Together, the projects form the Enhancing Community Resilience Programme (ECRP), which seeks to improve the lives of over 600,000 vulnerable Malawians. In this article we: 1) develop a framework for exploring CCD's procedural justice implications in the context of power; 2) identify different stakeholders' priorities for ECRP project design; and 3) evaluate stakeholder recognition and participation in ECRP design processes.

2. Designing CCD: multi-stakeholder preferences, procedural justice and power

CCD stakeholders refer to actors or organisations that are interested in, or impacted by, CCD (Freeman, 1984). Multi-stakeholder partnerships incorporating actors and organisations that operate across global, national and local scales can facilitate CCD design. They allow linkages between development, mitigation and adaptation to be harnessed and trade-offs to be minimised (Dyer et al., 2013). They can also help reduce implementation costs (Larrazábal et al., 2012) and encourage longer-lasting benefits (Peskett et al., 2008). Hence, stakeholder recognition and participation within design processes could make CCD effective and efficient,

as well as socially just. Accordingly, policy standards that encourage CCD outcomes (e.g. REDD+, the Clean Development Mechanism) mandate that interventions consider stakeholder preferences (UNFCCC, 2006; UNFCCC, 2011).

Professional CCD stakeholders comprise individuals, or organisations with employees, who earn a living through work related to mitigation, adaptation and/or development. They commit resources that enable CCD initiatives (e.g. finance from donor agencies, implementation expertise from NGOs and host governments) (Dyer et al., 2013).

CCD initiatives operate across diverse governance levels but commonly aim to reduce the vulnerabilities of (often heterogeneous) groups of 'local people' bound together by the proximities of their homesteads (CDKN, 2016). Local people often desire access to CCD decision-making processes (Cromberg et al., 2014). Involving local people in design can: help them expand their intellectual capabilities (Alkire, 2005); enable understanding of conditions that facilitate their engagement in implementation; and help ensure that project outcomes improve their lives (Gustavsson et al., 2014). Achieving these benefits is unlikely when local people are involved only tokenistically and/or populations are considered socially homogenous or knowledge-poor. In such cases, vulnerable populations may be detrimentally affected (Cook and Kothari, 2001).

Restricted understanding of the climate system (Curry and Webster 2011) and development data shortages (Devarajan, 2013) means CCD design must navigate substantial uncertainty. In the absence of certainties, balancing development, mitigation and adaptation priorities is contentious. There can be disagreement over how development should be defined and progressed (Pieterse, 2010) and stakeholder priorities for CCD (conditioned by distinct cultures and value positions) often conflict with one another (Hulme, 2011). Local people that climate and development interventions target have diverse identities and needs, giving way to dissimilar preferences for CCD (e.g. according to age, gender, resource wealth) (Dodman and Mitlin, 2013). Developing countries' populations and governments often prioritise development and adaptation over mitigation in order to reduce global inequalities (Tanner et al., 2014). Others suggest that these countries should prioritise low-carbon approaches because mitigation finance can help drive development (Bowen and Fankhauser, 2011).

By simultaneously recognising the importance of development, mitigation and adaptation, CCD could reconcile diverse stakeholder preferences through design processes (IPCC, 2014b). Professional stakeholders have sometimes collaborated successfully to design CCD (Corbera et al., 2007). However, other initiatives have been designed in isolation from local and national government representatives (Mathur et al., 2014). Questions have been raised

about the accountability of projects that operate without host government involvement (Spiro, 2002) and their implications for state sovereignty (Whitfield, 2008). Without a key actor (such as the government) having an oversight of activities, CCD lesson-sharing may be limited, initiatives may be poorly harmonised and contributions towards national CCD trajectories may go unrecognised. NGO representation in CCD design can help interventions for overcoming vulnerabilities to be more locally-appropriate. However, private-sector led CCD has sometimes excluded NGOs (Leventon et al., 2015).

Evidence of design that has successfully reconciled professional stakeholders' and local people's preferences is scarce, although exceptions exist. For example, Awono et al. (2014) show how village residents targeted by Cameroonian carbon forestry projects were encouraged to suggest livelihood improvement strategies. Likewise, local people were able to identify activities for implementation under a voluntary carbon market project in the Democratic Republic of Congo (Mathur et al., 2014).

CCD design is often 'top-down' and 'expert-led', with minimal local-level involvement and decisions imposed on target populations (Mustalahti et al., 2012; Sova et al., 2015). Yet, CCD initiatives instigated across levels are commonly cloaked in the rhetoric of 'participation' and 'inclusion' (Dodman and Mitlin, 2013). While local people may manipulate top-down project implementation processes in order to meet their own goals (Cook and Kothari 2001), restricted participatory opportunities with design processes can result in local people's misrecognition — the absence of recognition — because their priorities are ill-considered (Atela et al., 2015).

Power conditions whether stakeholders can achieve procedural justice (Gaventa, 2006). Visible, hidden and invisible forms of power exist (Ibid.) but holistic analyses that consider how all three types of power shape CCD design are rare. Visible power refers to formal rules, structures and institutions that govern decision-making. Whether different stakeholders can engage with visible decision-making processes hinges on their capabilities to do so (VeneKlasen and Miller, 2002). Hidden power concerns 'who' can make decisions about 'what'. Invisible power is exerted when stakeholders influence the belief systems of others, which include considerations of who is worthy of recognition and participatory opportunities (Ibid.).

The CCD literature predominantly considers stakeholders' inability to achieve procedural justice in CCD design to result from visible and hidden powerlessness (Sova et al., 2015). For instance, resource shortages are often used to explain governments' non-involvement (Stringer et al., 2012), while limited local participation is frequently attributed to low education levels and the opportunity costs of foregoing livelihood activities (Gustavsson et al., 2014). In

contrast, professional stakeholders commit resources that enable CCD and commonly have their preferences considered (Mathur et al., 2014).

Well-articulated hidden power dynamics can constrain stakeholders' procedural justice opportunities. For instance, governments have been excluded from CCD design because carbon market standards do not oblige project developers to involve host governments (Ibid.). Likewise, key design decisions (e.g. identifying project aims and objectives, implementation timescales) are often taken prior to any community-engagement (Kalame et al., 2011). Professional stakeholders have justified limited local involvement in CCD design by stressing that it can encourage unrealistic expectations for projects (Cromberg et al., 2014).

Even when local people are involved, methodological limitations can obscure and conceal their preferences. 'Participatory' tools for assessing vulnerability often pre-determine vulnerability parameters and withhold opportunities to suggest solutions for overcoming vulnerability and/or evaluate intervention designs (Alkire, 2005). The cost of conducting participatory assessments can mean only small 'samples' of local people are engaged (Kalame et al., 2011). Misrecognition can occur when assessments are focussed at, or aggregated to, the community-level and overlook diverse and/or dissenting preferences (Bours et al., 2014).

Explicit consideration of how invisible power conditions procedural justice opportunities within CCD design is scarce (Sova et al., 2015). However, it has been suggested that internationally-driven, 'expert' knowledge and western science are being privileged within CCD design. Sometimes, 'expert' knowledge is imported from abroad and unsuitable within local contexts. Leventon et al. (2015) reflect on how Zimbabwean conservation agriculture techniques were incorporated within Zambian CCD project designs, but were incongruous with local conditions. Consequently, local people achieved reduced crop yields compared to those before the projects.

Local people's recognition is also linked to CCD having their informed consent (Resodudarmo et al., 2012). Strictly, informed consent requires that people choose activities to participate in based upon their full understanding of all available information pertaining to these activities (Alkire 2005). However, worldviews of local people are often grounded in indigenous values, which can be at odds with western science (Hulme, 2011). In situations where CCD design is framed using scientific realities, gaining informed consent for CCD on such stringent terms, especially mitigation activities (that require an understanding of the causes of climate change), may be difficult.

Studies suggest that CCD design has created patterns of both procedural justice and injustice. CCD projects risk being designed in a way that furthers the values and preferences of the already powerful (e.g. donor agencies) but marginalises those with less power (e.g. local people) (Kalame et al., 2011; Mustalahti et al., 2012). While the literature touches on participation and recognition in CCD design, it does not systematically analyse procedural justice, meaning further research is required. Stakeholders' inability to achieve procedural justice is often presented as a product of visible and hidden powerlessness (Sova et al., 2015). Barriers to procedural justice that are created by invisible power dynamics have been ill-considered. In the following section, a theoretical framework is presented that facilitates holistic exploration of power and procedural justice within CCD project design.

3. Theoretical framework

A framework was developed to guide evaluation of the procedural justice implications of CCD in the context of power (Figure 1). Gaventa's (2006) 'power cube' approach was used as the starting point, facilitating understanding of participatory 'spaces' through which stakeholders can meaningfully engage with governance systems, and the visible, hidden and invisible power dynamics that delimit these spaces. The power cube was adapted to consider 'procedural justice spaces' rather than 'participatory spaces', thereby enabling explicit consideration of both stakeholder recognition and participation in CCD.

Procedural justice spaces can classified as: closed spaces, where stakeholders are not recognised as legitimate actors and decision-making takes place in their absence; invited spaces, where stakeholder preferences are in some way recognised by CCD interventions and they are offered participatory opportunities; or claimed spaces, that stakeholders establish to pursue their interests and base upon their own recognition patterns. The spaces, governance levels at which they occur and forms of power that shape their existence comprise the three interconnected cube dimensions (Gaventa, 2006).

Hurlbert and Gupta's (2015) 'split ladder of participation' guides analysis of stakeholders' participatory opportunities in invited and claimed spaces (see dashed arrows in Figure 1). The typology is an advance on hierarchical alternatives (e.g. Arnstein, 1969) that consider participation as symptomatic of binary power struggles between governing bodies and citizens. The split ladder considers participation as social learning processes whereby multiple independent stakeholders collaborate for diverse reasons and are involved in unique ways. The specific problem being addressed determines the appropriate form(s) of stakeholder participation (Hurlbert and Gupta, 2015).

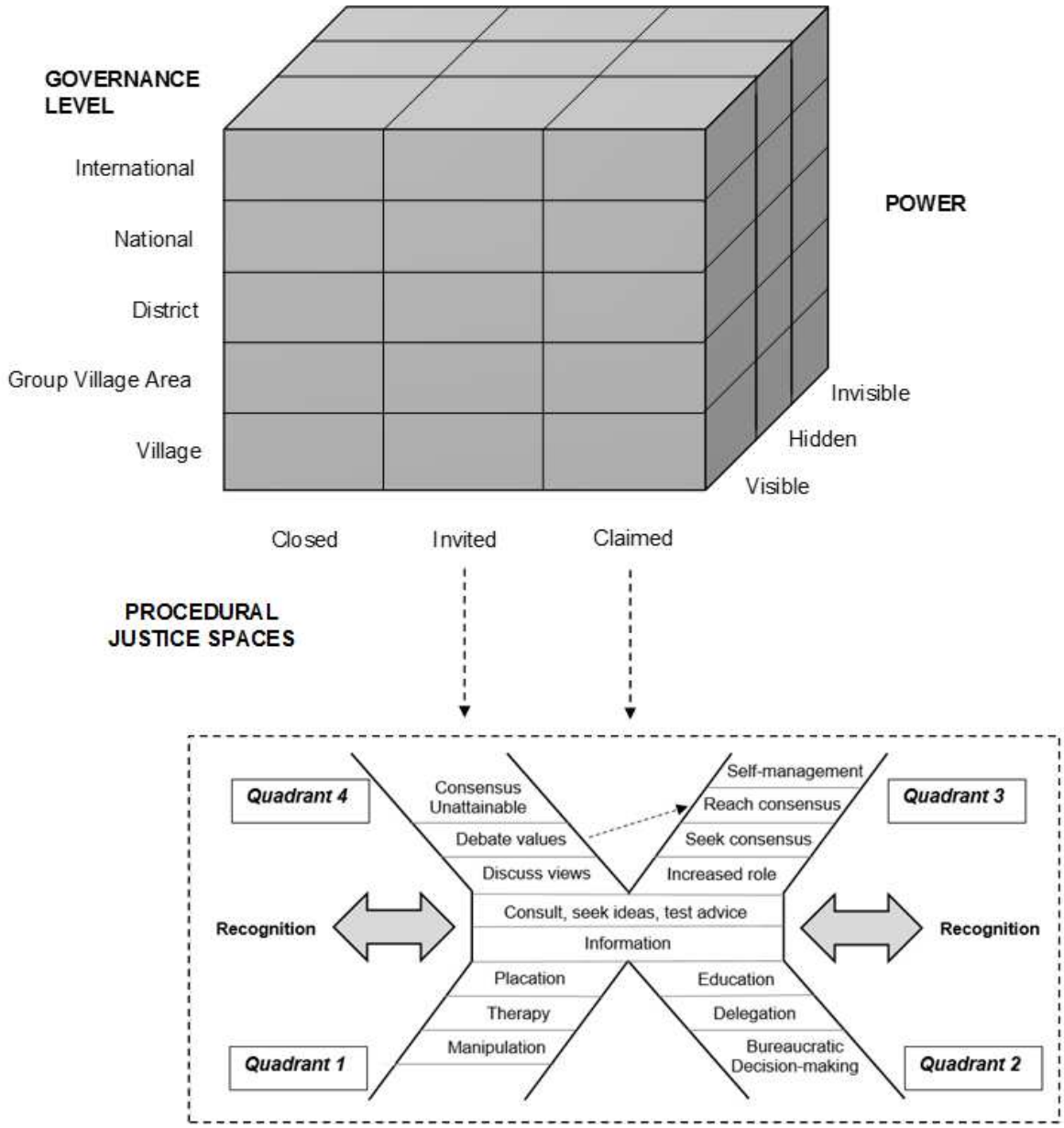

Figure 1: A framework to guide exploration of CCD procedural justice spaces. Adapted from Gaventa (2006); Hurlbert and Gupta (2015).

Figure 1 presents four quadrants of the split ladder. Table 1 describes each quadrant. Locating participatory opportunities within different quadrants allows appraisal of whether they are pertinent to policy problems being addressed. Reciprocal linkages between recognition and participation, which feedback on one another, are encompassed in the framework (see two-way arrows in the dashed box).

Development, mitigation and adaptation decision-making occur across different governance levels (Klein et al., 2005). The framework facilitates multi-level analyses, enabling investigation of whether and how the procedural justice spaces open to stakeholders' differ

across these dimensions (Gaventa, 2006). In this research, the power cube has been adapted to reflect the levels at which ECRP decision-making processes have occurred: international; national; district; group village area; and village.

Table 1: Quadrants for examining the depth of stakeholder participation within the design of ECRP projects. Source: Hurlbert and Gupta (2015).

	Description
Quadrant 1	• Stakeholders disagree over beliefs, values and/or specific approaches for achieving goals. • Information flows one-way, from projects to stakeholders. • Participation often illusory or aimed at adjusting stakeholder values and/or extracting information. • Stakeholders not involved in final decision-making. • Negligible learning between decision-makers and stakeholders.
Quadrant 2	• Policy problems are structured: there is substantive agreement on principles and aims between stakeholders. • Technocratic decision-making representing stakeholder interests is possible. • Decision-makers may interact with stakeholders to educate them about decisions taken: information flows are unidirectional. • Social learning is incremental ('single-loop learning').
Quadrant 3	• Policy problems are moderately structured: stakeholders share trust but facts are uncertain or there is disagreement over values or approaches for achieving goals. • Stakeholders are highly engaged decision-making processes, with opportunities to shape ideas and outcomes. • Iterative information flows allows assumptions to be reflected on and questioned ('double-loop learning').
Quadrant 4	• Policy problems are unstructured: there is great uncertainty in knowledge and disparate value positions are disparate. • Solutions appear intractable and require significant debate and discussion between stakeholders. • Extensive participatory opportunities are required to develop trust and understanding. • Deeply-held value positions and norms are scrutinised, leading to rich understanding of decision-making contexts ('triple-loop learning').

4. Research approach and methods

4.1 Research context and case study approach

Malawi was chosen as a research location because: a) it is amongst the world's most vulnerable countries (Barrett, 2013); b) projects pursuing CCD goals are already being implemented in the country; and c) Malawi's policy infrastructure encourages sub-national

projects that advance development, mitigation and adaptation (GoM, 2012). 12 projects pursuing CCD goals were identified nationally via 24 semi-structured interviews with climate and development professionals (completed April 2014).

The Developing Innovative Solutions with Communities to Overcome Vulnerability through Enhanced Resilience (DISCOVER) project and Enhancing Community Resilience Project (ECRProject) were chosen for further study because they have more wide-reaching procedural justice implications than other identified projects. The selected projects are larger (DISCOVER targets 305,000 beneficiaries; ECRProject targets 298,500) and receive more funding (£21.5million) than other projects within the initial sample. Together, they form the ECRP, which is financed by UK, Norwegian and Irish Government grants.

Both projects began in autumn 2011 and run until March 2017. They implement activities that transcend the agriculture, forestry and energy sectors: conservation agriculture, small-scale irrigation, livestock production, solar lighting adoption, improved cookstove adoption, post-harvest management, seed multiplication schemes, forestry activities and village savings and loans associations. By implementing these activities, they aim to achieve a range of development goals and help households adapt to the consequences of dry spells and drought, heavy rains and flooding and strong winds. Projects intend to contribute to mitigation by reducing the sources and/or enhancing the sinks of greenhouse gases. Female-headed, elderly-headed and extremely resource-poor households, as well as those containing disabled or chronically ill adults, are considered to be particularly vulnerable and are primarily targeted by project activities (CU; CA, No Date).

ECRProject and DISCOVER operate across seven and five districts in Malawi, respectively (Figure 1). Diverse district study sites were chosen to facilitate understandings of the priorities and procedural justice experiences of local people living in areas with different socio-economic and climatic profiles. Dedza (DISCOVER district), Kasungu (ECRProject district) and Nsanje (both projects) districts were selected based on analysis of documentary material (MVAC, 2005) and discussions with project staff. Dedza and Kasungu have comparable socio-economic profiles. Across the two districts, food security levels, population sizes, average household wealth levels, dominant livelihood activities, agricultural conditions, market access, and ethnic diversity are very similar. They also share analogous climate conditions, in terms of seasonal trends and major climate chocks and stresses. Both are considered to have a superior socio-economic status to Nsanje, where agricultural productivity is lower, HIV prevalence is higher, households are more isolated from markets and their incomes are markedly lower (Ibid.). Nsanje is considered one of the most climate vulnerable districts in Malawi, with populations acutely affected by floods and droughts (NDG, 2015) (Appendix A).

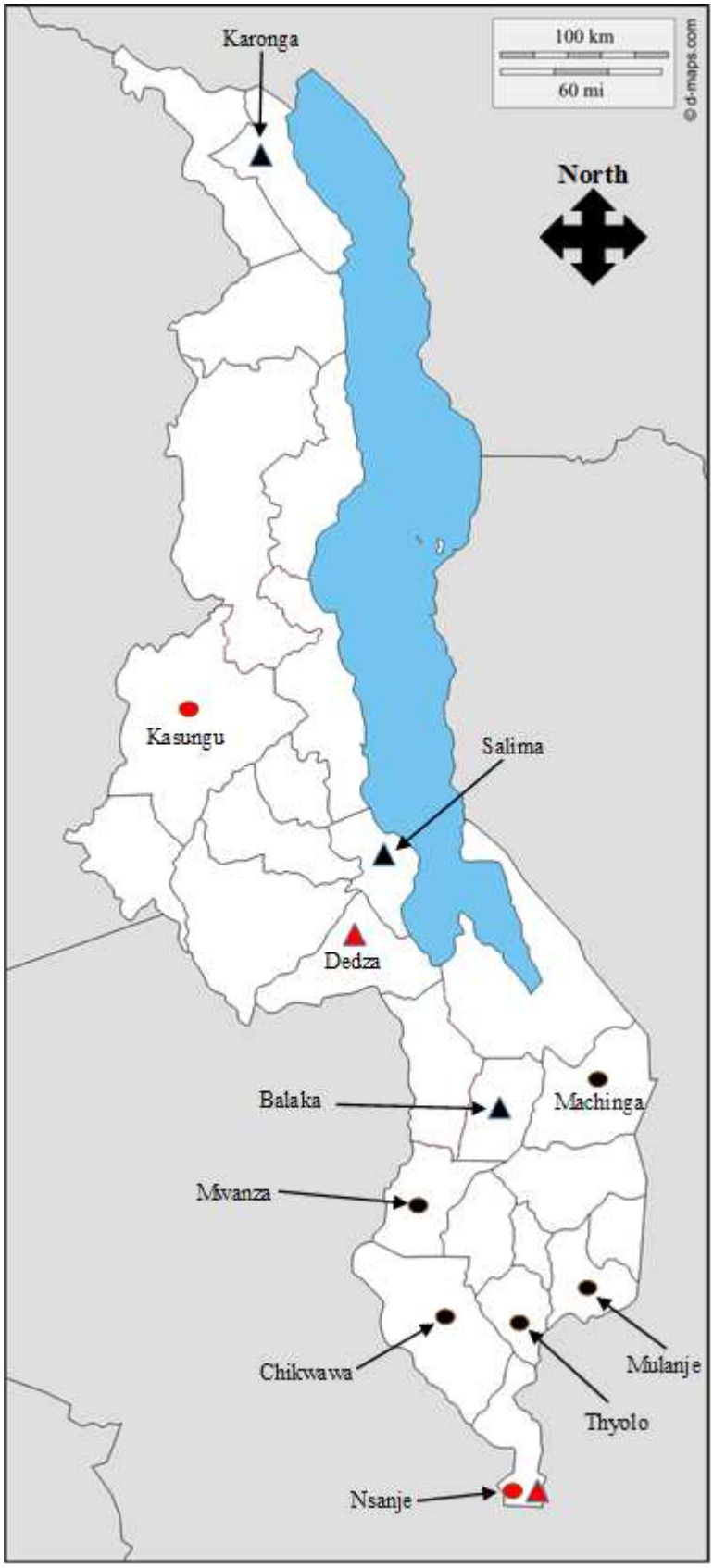

Figure 2: Districts targeted by ECRProject (circles) and DISCOVER (triangles) projects. Study districts highlighted in red. Adapted from D-maps (2016).

Two study villages were chosen in Dedza, Kasungu and Nsanje. The advice of project field staff was sought to ensure that villages were made up of similar numbers of households, close to each other geographically and targeted with similar project activities. However, in Dedza and Kasungu, two villages with different average household resource wealth levels were purposively chosen based on field staff advice. This enabled consideration of whether and how household priorities for project design differed accordingly. Average household resource wealth levels were similar across both Nsanje villages.

Working with field staff was crucial for securing introductions to, and building trust with, households in study villages. To help reduce possible bias, information obtained from field staff was verified through researcher observations of household resources, wealth ranking exercises and discussions with local people during data collection.

4.2 Material collection

Data collection took place between September 2014 and May 2015. Information was sought from all stakeholders involved in project design. Descriptive data from households across selected village sites was collected using surveys (n=457) and semi-structured interviews (n=140). Households were the appropriate data collection unit because projects seek to provide benefits to households rather than individuals (CA; CU, No Date). Survey responses were sought from a random sample of 50% of all households in each village. Survey data were analysed using coding techniques. Key themes related to household recognition and participation were identified (Babbie, 2008). Household interviewees for semi-structured interviews were selected using a purposive sampling approach to follow up on these themes (Teddlie and Yu, 2007).

A participatory methodology was used to rank households according to their resource wealth (Jefferies et al,. 2005). In each study village, Village Heads identified six informants (one male and one female considered to reside in 'lower-than-average wealth', 'average-wealth' and 'higher-than-average wealth' households) with which interviews were conducted to identify locally appropriate wealth indicators. Using information obtained through household surveys, every household that took part in research was wealth ranked using these indicators. Wealth ranking allowed households to be categorised related to their ownership of material resources and helped uncover how local procedural justice experiences differed in relation to household wealth.

32 semi-structured interviews gathered qualitative data from professional stakeholders: two donor agency employees; 21 NGO employees; one national and eight local government

employees. All stakeholders were asked about their preferences (development, mitigation, adaptation, other) for project design and whether they were afforded participatory opportunities.

Some interviewees guided the researcher towards documents that supported, or provided more detail on, their responses. These documents were subsequently analysed. They comprised: six programme and/or project design documents (ECRProject; DISCOVER, 2012; DfID; CA; CU, No Date; ECRProject, 2011); two donor government policy documents (DfID, 2011; ICF, No Date); four policy documents produced by the Malawian national government (GoM, 2006; GoM, 2012; MVAC, 2005; GoM, 2011); four policy documents produced by Malawian district governments (DDG; KDG 2013; NDG, 2014; NDG, 2015) and two consultancy reports (LTSI, 2014; Phiri, 2010).

4.3 Data analysis and framework application

Content analysis (Babbie, 2008) and critical discourse analysis techniques were used for data analysis (Fairclough, 1992). Univariate analysis techniques were used to analyse statistics derived through amalgamating survey data (Babbie, 2008). The framework developed in section 3 was used to guide the analysis and evaluate: 1) whether and how different stakeholders were afforded recognition and participatory opportunities within the ECRP 'Design Space' and 2) and whether and how power conditioned procedural justice opportunities.

The Design Space comprised those opportunities and channels through which project design was determined. It represented an unstructured problem because knowledge of future climate impacts was (and remains) uncertain (DfID, No Date), and stakeholders held diverse CCD preferences. Therefore, achieving procedural justice required that decision-making was based on significant deliberation between stakeholders (Quadrant 4, Table 1).

Stakeholder participatory opportunities were classified using the split ladder (Hurlbert and Gupta, 2015). An inductive approach identified instances within the data where stakeholders' identities, cultures and values were (mis)recognised. Constant comparison techniques identified linkages between individual instances, allowing patterns of (mis)recognition to emerge (Glaser and Strauss, 1967). Whether and how stakeholder recognition and participation differed across governance levels was considered. Combined use of content analysis and critical discourse analysis techniques enabled identification of how visible (content analysis), hidden (content and critical discourse analysis) and invisible power (critical discourse analysis) conditioned procedural justice opportunities.

5. Results

Opportunities for professional stakeholders and local people to participate and have their preferences recognised through ECRP design are presented in turn. For confidentiality purposes, interviewees and survey respondents are anonymised.

4.1 Professional stakeholders

The Design Space was an invited space (Gaventa, 2006), led and controlled by donor agencies — predominantly the UK Department for International Development (DfID), the largest funding provider. Donors selectively recognised and requested other stakeholders' participation. The primary aim of the ECRP was donor-determined: to *"increase the resilience* of vulnerable *communities to climate variability and change"* (DfID, No Date: 1).

In April 2011, donors invited NGOs to propose ECRP project designs. Through communications with prospective consortia, donors set out a prescriptive overarching project design framework, which sought to balance upward and downward accountability. Donors aimed to ensure that projects were locally-appropriate and that local people could participate in, and benefit from, activities. However, projects must also provide value-for-money (DfID, 2011) and meet developed country policy goals.

Donors commissioned a consultant to review disaster risk-reduction and adaptation programmes and projects in Malawi and produce *"information which would assist in the development of the design"* (Phiri, 2010: 7). This occurred through discussions with NGO personnel responsible for interventions but local people's views were not considered. Results stressed that project adaptation and development goals should be pursued through multiple mutually reinforcing 'community-based activities' (Ibid.). Donors considered that these activities should draw on the institutions, resources (including natural resources) and knowledge of 'communities' of local people (DfID, No Date)

Activities with mitigation co-benefits (e.g. solar energy, improved cookstoves and afforestation) were prioritised: *"a win-win approach"* (donor agency employee). According to two NGO employees, low-carbon approaches are "*high on their [DfID's] agenda"* because they *"fit into the bigger UK policy agenda [of mitigation]"*. Implementing low-carbon technologies through the ECRP helps the UK to deliver its international climate commitments. Another UK Government objective was to build the evidence base to encourage developing countries to move towards low-carbon pathways and help *"lay the foundations for a global climate deal"*

(ICF, No Date). Data concerning the numbers of *"poor men and women"* provided with energy access under the ECRP is being collated to help show that moving towards low-carbon pathways can enhance global development (ICF, No Date).

ECRProject and DISCOVER responded to the donors' call for proposals. Consortia member organisations collaborated to design projects, engaging in dialogue and learning visits with one another. Two NGO employees commented that *"we were having workshops with the whole team for almost three weeks"* and *"it was an inclusive process"*. Consortia members' design preferences were borne out of organisational pragmatism. One donor and four NGO interviewees agreed with an NGO employee who considered that organisations prioritised implementation of *"activities in which we had expertise…in areas where we already had presence"*.

This prescriptive project design framework allowed donors to exert hidden power, which curtailed NGO opportunities to participate in substantive decision-making. NGO employees were nevertheless afforded significant autonomy to shape project implementation strategies. This led ECRProject and DISCOVER to pursue quite different approaches. For example, carbon emissions reductions enabled by household improved cookstove adoption have been used to leverage carbon market finance under DISCOVER but not ECRProject (CU, No Date). Some ECRProject NGO organisations have used village savings and loans associations and disaster-risk reduction training sessions as entry points for introducing other project activities within target villages, unlike DISCOVER NGOs.

Consortia opportunities to determine projects' strategic aims and objectives were restricted. According to one NGO interviewee: *"o*ver 90% of what was in the call for proposals ended up *in the project"*. Another considered that *"everything was heavily influenced by DfID thinking"*. Donors were able to exert hidden power because "NGOs are completely dependent on donor *funding opportunities…to continue our operations"* (NGO interviewee). That donor funding opportunities involve a high level of prescription is an established norm: the *"common approach"* (NGO interviewee). However, limits to NGO participation within design processes may reduce the chances that projects are locally appropriate.

Over time, dependency on funding has led to donor project design preferences being institutionalised within NGO practices. Donors' hidden power has produced, and been reinforced by, invisible power. Five NGO interviewees considered that community-based approaches, which were first introduced by donors over a decade ago, have become the accepted blueprint for climate and development projects: *"it's the new way of thinking"* (NGO employee). Likewise, NGOs *"can't miss emissions reductions out in projects which deal with*

climate *change now*" (NGO employee). Hence, development and adaptation activities favoured by donors and included within project design are also those that NGOs have expertise in and wish to continue implementing (six NGO employees). Invisible donor power over NGO value positions may have crowded out space for these value positions to incorporate local priorities.

NGOs were afforded Quadrant 3 participation (Figure 1, Table 1). Information flows with donors were iterative but consortia members were recognised as technical, rather than strategic, decision-makers. Consortia members were responsible for proposing specific implementation strategies within the context of the overarching framework set out by donors.

National and local government policy documents were consulted during project design. Project development and adaptation goals and specific activities implemented by the project largely reflect national and local government preferences for development and adaptation (GoM, 2006; GoM, 2011; NDG, 2014; KDG; DDG, 2013). Traditional leaders, who are integrated within district government systems in Malawi, have contributed to defining these preferences. Information produced by national government bodies was used to locate projects within Malawi's most climate vulnerable districts (2 NGO employees; DfID, No Date). Climate mitigation, which will reportedly create "positive local and global socio-economic as well as *environmental benefits",* was considered a priority at national (GoM, 2012: 10) and local levels (two district government employees).

National government actors perceived that they were side-lined from decision-making (hidden powerlessness). One government employee stated: *"we were not involved in deciding the project goals; we were just informed"*, adding that *"[*the ECRP] has disrespected the *government".* The interviewee rejected consortia suggestions that they held face-to-face project design discussions with government representatives (CU; CA, No Date). However, the same interviewee considered that limited government involvement could also be explained by an absence of policy frameworks mandating government input into climate and development projects (visible powerlessness): *"government…[is] also to blame. We did not have policy in place".* A donor employee set out reasons why national government was overlooked, citing low capacity (visible powerlessness) and concerns about misplaced government priorities:

> We did not want [national government] to make decisions on behalf of the people on the ground. The chain is so long for the government, it would take so long…*Their eyes* would be on the money...They just want you to buy them things like four-by-four vehicles.

4.2 Local people

Projects pay considerable rhetorical attention to local people's participation and recognition. Local 'participation', 'empowerment' and 'ownership' are mentioned 23, 22 and 24 times, respectively, within ECRProject (CA, No Date) and DISCOVER (CU, No Date) design documentation. However, local people were only afforded Quadrant 1 participation in project design.

Consortia invited households to take part through Participatory Vulnerability and Capacity Assessments (PVCAs) (November 2011). Assessments were conceived to capture household perspectives, identifying: key risks and hazards experienced by households; livelihood activities practised by households; important local institutions and approaches for sharing climate information; household asset ownership; and existing household approaches for dealing with difficult weather conditions. Documentary review suggests that PVCA design adopted a flexible approach that allowed households to define vulnerability in a locally-appropriate way. Households were also given scope to suggest solutions to climate and development problems (ECRProject, 2011). However, they were unable to take any decisions relating to project design, which is an example of hidden powerlessness. They were recognised only as information providers, with PVCA processes encouraging a one-way flow of information from local people to NGOs and donors (ECRProject; DISCOVER, 2012).

PVCA information validity is limited by small sample sizes. ECRProject PVCAs took place in 55 villages under 40 Group Village Areas across Malawi (ECRProject, 2012). By 2014, ECRProject was operational in 948 villages under 122 Group Villages Areas (LTSI, 2014). DISCOVER PVCAs took place in 35 Group Village Areas (DISCOVER, 2012). By 2014, DISCOVER was operational in 1149 villages in 110 Group Villages Areas (LTSI, 2014). Two NGO employees blamed sampling limitations on limited capacity: *"to do PVCAs in all the* villages could take a lot of*…time and resources"* (NGO employee). The visible powerlessness of NGOs restricted opportunities for local preferences to be considered within project design.

Information generated through PVCAs was used only to validate consortium design decisions already taken: two NGO employees commented that *"the PVCA validated the programme design…*[which] *was written from desk work";* and *"we didn't submit a concept note, conduct* the PVCAs and then, from there, work out what direction we should go *in…that didn't happen"*.

Consortium members disagreed on the extent to which project designs incorporated PVCA findings. One NGO employee considered that "PVCAs confirmed what everyone was talking *about…the results and the project proposal…*speak to each o*ther".* However, according to a

different NGO employee, Western NGO staff preferences were prioritised over household preferences: "each expat wanted his ideas included…to the extent that the views of the *communities might have been left out".* Professional stakeholders and documentary material provided no evidence that PVCA information changed any decisions made during desk-based design. Local people's misrecognition may have translated into invisible power that reinforced their aforementioned visible powerlessness.

Despite PVCA sampling limitations and their restricted consideration within decision-making, household survey results show that many strategic design decisions aligned with local priorities. Most ECRP development and adaptation goals were highly valued by study village households, as indicated by Tables 2 and 3. Using surveys, we asked households to rate the importance of ECRP development goals using a scale of 0-3: 0 meant goals were perceived as unimportant for improving household members' lives; 3 meant goals were perceived as extremely important (Table 2). Similarly, households were asked to rate how problematic they perceived particular climate shocks to be (Table 3).

Interviews conducted with household heads validated these findings. One household head in Kasungu stated: *"our lives will be improved [by ECRP development goals]*, so we feel *honoured and respected"*. A Nsanje household head said: *"people had no idea how to deal* with the issues [climate shocks] in the past but now we are being educated – we are happy *about that".* Another Nsanje household head considered that, *"wi*thout the project the [2015] *flooding would have been more severe".*

Table 2: Mean importance ratings of ECRP development goals by households. Source: 256 household surveys.

Household Type	Improved food and nutrition security	Increased household income	Improved abilities to do business	Access to electricity	New cooking technologies	Access to natural resources	Increased ownership of valuable items
All	2.98	2.92	2.73	2.4	2.67	2.76	2.71
Average wealth households	2.98	2.95	2.78	2.46	2.68	2.7	2.83
Less-than-average wealth households	2.98	2.91	2.59	2.03	2.48	2.78	2.43
Higher-than-average	2.96	2.87	2.76	2.62	2.84	2.91	2.8

wealth households							
Elderly-headed	2.97	2.9	2.38	2.03	2.54	2.65	2.64
Female-headed	3	2.95	2.54	2.08	2.64	2.74	2.79

Table 3: Household perceptions of climate shocks targeted under ECRP. Source: 256 household surveys.

Type of climate shock	% surveyed households who				Mean problem rating
	Have experienced shock(s)	believe them to be			
		worsening over time	becoming more frequent over time	becoming more unpredictable over time	
Dry spells/ drought	95%	50%	56%	47%	2.72
Heavy rainfall/ flooding	85%	49%	52%	45%	2.45
Heavy winds	91%	40%	39%	44%	2.04

Donor rationales for including low-carbon technologies within projects are not understood by households. Knowledge of what greenhouse gases are or how they affect the climate is minimal. 37% of household survey respondents were unsure why weather patterns change over long periods of time. 52% believed trees were the most important regulators of climate: "trees help to bring in rainfall". Commonly, this reflected a belief that God rewards villages who look after natural resources with good weather. Only two household respondents reported that greenhouse gas emissions cause climate change. Therefore, households chose to participate in low-carbon activities based on perceived benefits associated with an indigenous worldview rather than scientific knowledge of climate change.

Development goals (electricity access, new cooking technologies) pursued through household solar lighting and improved cookstove adoption, which produce mitigation co-benefits, were least highly prized by households (Table 2). Less-than-average wealth, elderly-headed and female-headed households gave these goals the lowest importance. They routinely rated these goals as 'not very important' or 'not important at all'. Two-tailed t-tests showed that differences between mean electricity access ratings provided by all households and both less-

than-average wealth (t=2.50, p=0.01) and elderly headed households (t=2.82, p=0.005) were statistically significant. One less-than-average wealth Dedza household head described electricity access as a *"luxury".* A less-than-average wealth, female Nsanje household head said that *"electricity, through solar or another way, is not important for us at all. What matters to our household is good shelter and food".*

Improved water access is a development goal that can also contribute to adaptation because flooding and drought condition water security in Malawi (GoM, 2006). It emerged as a local priority but was not incorporated within project design. In one Dedza study village and one Kasungu study village, 24% and 38% of survey respondents, respectively, considered poor water access a significant problem. The Village Head of the Dedza study village explained how households had relocated to a new village site 20 years ago. The current village location has no water access infrastructure but the previous village location had become inhabitable due to perpetual flooding. Five interviewees in the Kasungu village reported that households rely on shallow wells dug close to a nearby stream. However, wells take a long time to refill once emptied, especially in the afternoons and the dry season. Other households commute to a trading centre where the nearest borehole is located. Two interviewees reported that they make a three to four hour round trip at least twice a day, reducing time available to engage in productive livelihood activities.

DISCOVER PVCA findings also reveal that *"water, sanitation and hygiene were identified as priorities in a number of the communities where we conducted PVCA"* (CU, No Date: 11). However, the consortia decided not to alter project design to incorporate water security activities. This was because *"we do not want to overstretch the set of activities"* (Ibid.). An alternative reason for non-inclusion was provided by a donor agency employee. He said that *"DfID was also implementing a water and sanitation programme in some [non*-ECRP] districts" but considered that DfID preferred not to duplicate activities through different programmes and projects. This is further evidence that local preferences were secondary to professional stakeholder preferences within the Design Space.

6. Discussion

The analytical framework has enabled comprehensive evaluation of the procedural justice implications of ECRP project design. By incorporating a holistic power analysis, the framework furthers understanding of the contextual factors that delimit stakeholders' procedural justice opportunities. It can be used by academics and practitioners to unpack and systematically critique CCD design, both at and beyond the project-level. Procedural justice spaces that succeed CCD design can also be evaluated using the framework.

Our findings show that interlinked and mutually reinforcing forms of visible, hidden and invisible power condition stakeholders' procedural justice opportunities during CCD design, which further reinforces the value of holistic power analyses. In the following, we situate our results within the CCD literature. Stakeholder priorities for CCD are discussed before recommendations are presented to facilitate pathways to procedural justice through design processes.

5.1 Stakeholder priorities for CCD

Considerable overlap existed between different stakeholder priorities for ECRP project design. Donors, NGOs and government representatives prioritised CCD triple-wins, to be delivered through packages of mutually-reinforcing community-based project activities. Local people's preferences for project design translated into the pursuit of double-wins across development and adaptation. Common ground could help facilitate multi-stakeholder partnerships and constitute a previously unidentified driver for advancing CCD (Ellis et al., 2013 present other drivers).

Local people's and professional stakeholders' contrasting worldviews could impede collaborations around mitigation actions that are based upon strict definitions of informed consent. Local people prioritise ECRP low-carbon activities for different reasons than DfID and other implementing partners. Studies of other CCD projects show that values placed on low-carbon activities by local people and project implementing partners are often dissimilar (Jindal et al., 2008; Boyd et al., 2007). In such cases, incorporating mitigation activities within CCD presents an ethical dilemma that is overlooked in climate justice debates. If incorporated, populations will unwittingly take action to help solve a problem for which they have negligible responsibility but is exacerbating their vulnerabilities (Adger et al., 2006). However, mitigation activities may be associated with locally-valued benefits. Mitigation finance can also help augment traditional aid funding and provide extra resources for reducing vulnerabilities (Ellis et al., 2013).

Donor and NGO employees suggested that mitigation is achieved as a co-benefit of ECRP development and adaptation activities. However, activities with mitigation benefits (solar lighting, improved cookstoves) were the least prioritised by local people, especially the most vulnerable households living in particularly climate sensitive locations. In areas where water access was poor, activities focussed on improving the situation would have been more highly prized. Donor prioritisation of mitigation benefits may have crowded out opportunities for

pressing local priorities to be pursued through ECRP projects. Mustalahti et al. (2012) raise the same concerns about REDD+ projects in Tanzania.

Further points of contention between stakeholders may be obscured by power dynamics. Apparent and considerable overlap between different stakeholders' priorities is surprising because CCD operates in a context of uncertainty and value plurality (Curry and Webster, 2011; Sen, 2009). However, NGO dependence on external funding creates an invisible power dynamic that allows donor expectations to shape their activities, both in the ECRP and elsewhere (Chahim and Prakash, 2014). Government dependence on external budget support also enables donor preferences to permeate national policy positions (Swedlund, 2013).

Invisible power presents a challenge for advancing CCD. Because CCD design is an unstructured policy problem, design decisions should be predicated on deliberative participatory processes in which diverse stakeholder preferences are considered and critiqued (Hurlbert and Gupta, 2015). This would encourage decision-making that is contextually-appropriate and has widespread stakeholder buy-in (Ibid.). The suppression of government, NGO and local preferences undermines this process, reducing the chances that CCD will be well-suited to local conditions and constituencies, encourage local involvement during implementation and generate life-changing outcomes (Larrazábal et al., 2012).

5.2 Stakeholder recognition and participatory opportunities

ECRP project design was 'top-down' and donor-led, with only selective involvement of other stakeholders, which further compromises the collaboration and deliberation required to solve unstructured policy problems (Hurlbert and Gupta, 2015). Studies of other CCD interventions report similar design procedures (Sova et al., 2015; Atela et al., 2015). Visible, hidden and invisible forms of power create barriers to procedural justice in CCD design. These barriers sustain and exacerbate political and social-cultural oppression that condition patterns of underdevelopment.

NGO budgetary and resource constraints created a hidden power dynamic that prevented most target households from taking part in PVCAs. Limited visible power resulting from an absence of guiding policy frameworks also restricted government involvement in ECRP design (see also Stringer et al., 2012). NGO dependence on external funding (visible powerlessness) enabled donors to exert hidden power over NGOs, limiting their strategic contributions to the design process. Invisible power has not been accounted for within the study of CCD projects. Yet donor control of resources, upon which NGOs, governments and local people in Malawi

are dependent, enabled them to determine recognition patterns that were assimilated into ECRP design processes and conditioned stakeholder participatory opportunities.

It is increasingly suggested that CCD design problems are routinely being framed and solved using belief systems that privilege 'expert' knowledge and draw on western science (Käkönen et al., 2014; Sova et al., 2015). Stakeholders, such as donors, whose visible and hidden power enables them to control design processes, consider expert knowledge necessary for dealing with uncertainty and complexity within the CCD operating context. However, subsequent design processes misrecognise stakeholder (including local people's) preferences that do not align with western, scientific worldviews (Sova et al., 2015).

5.3 Lessons for current and future CCD project design

Based on research findings and the literature, five recommendations are now presented to encourage procedural justice and avoid injustice through CCD project design.

I. Avoid epistemological certainties

Solutions to well-defined policy problems can be designed using linear approaches that draw upon particular epistemological positions, but such approaches are unsuitable for designing CCD (Hulme, 2011). The institutionalisation of expert knowledge as the appropriate means to 'solve' CCD design is not consistent with uncertainty and complexity in the CCD operating context. It creates an invisible power dynamic that serves to reinforce visible and hidden forms of power that create procedural injustices. In order to overcome this invisible power dynamic and create pathways towards procedural justice, policymakers must avoid making design decisions on the basis of epistemological certainties and accept that CCD has no definitive reality. Uncertainty and value plurality in the CCD operating context means that, depending on how they are designed, CCD initiatives might create further problems that also require solutions (Ibid.). Adopting circumstantial, discursive design procedures that draw on diverse stakeholder perspectives could reduce the likelihood of this.

II. Put local priorities first

The crowding out of local priorities by professional stakeholder design preferences compromises procedural justice but may also demotivate people from taking part in project implementation. This reduces the chances that CCD will meaningfully improve peoples' lives or offer value-for-money. Climate change is often only one amongst many vulnerability drivers for developing world populations and may not be the most destructive in the short-term.

Designing activities that address local development priorities is crucial for encouraging local people to undertake mitigation and adaptation activities that generate longer-term benefits (Reid et al., 2009). Therefore, advancing CCD requires that local priorities become central to project design. In this context, targeted, robust and reflexive participatory needs assessments remain an important tool for integrating a range of local priorities within CCD design processes.

III. Make participatory assessments robust and reflexive

Methodological limitations mean project developers' reluctance to make participatory assessment results central to CCD project design is unsurprising. Small sample sizes mean findings from the ECRP and other project assessments are not generalisable and may have overlooked diverse preferences (Kalame et al., 2011; Awono et al., 2014). Greater provision of resources is required to facilitate robust participatory assessments that avoid tokenism.

CCD should follow the lead of ECRP projects, which used flexible categories to help local people classify their priorities and vulnerability. This is preferable to the use of closed categories or open-ended questions for revealing 'true' preferences (Alkire, 2005). One-on-one interviews that purposively target vulnerable individuals and households can help ensure that assessments capture diverse local priorities. Harnessing indigenous knowledge can facilitate innovation when local people are able to suggest solutions for overcoming their vulnerabilities (Nyong et al., 2007). Incorporating non-linguistic processes is important when tacit understandings are an important source of local knowledge (Mohan, 2001). Opportunities should be provided to allow local people to feedback on prospective project designs (Alkire, 2005).

IV. Take steps to reconcile worldviews

To avoid misrecognition through the incorporation of mitigation in CCD design, efforts should be made to reconcile the worldviews of local people and other stakeholders. Reid et al. (2009) outline a range of methods (e.g. community mapping and modelling, climate 'schools', theatre-for-development) that can expand local peoples' climate knowledge whilst broadening project employees' understanding of indigenous worldviews and vulnerabilities. Research suggests that people are more likely to invest the necessary effort to encourage successful mitigation and adaptation actions when they are aware that climate change is human-induced (Mutabazi et al., 2015). There is no single optimum co-learning method. What is important is that reconciliation processes enable stakeholders to identify, classify and understand worldviews held by themselves and others. This will rely on project staff acknowledging the subjectivity inherent in CCD design decisions (Raymond et al., 2010).

Local people may in some cases be unable to give their full, informed consent for mitigation activities if this requires that they understand and assimilate a scientific worldview. Explaining the value positions behind, and complexities inherent in, carbon trading may present particular problems when market funding mechanisms are utilised (Granda, 2005). In such cases, project developers must make decisions that result in trade-offs between procedural and distributive justice. Psychological theories suggest that people in extreme resource-poverty prioritise the achievement of material benefits over procedural freedoms (Inglehart, 1971). Hence, proceeding with activities that create mitigation benefits would seem sensible providing they are adequately designed to also facilitate substantial and locally-valued development and adaptation gains.

V. Harness knowledge co-production between professional stakeholders

Knowledge co-production between professional stakeholders can strengthen CCD design (Dyer et al., 2013). Donors offer financial resources contingent on democratic mandates from developed country populations. Their global reach makes them well-placed to help integrate CCD projects in particular places with innovative learnings from elsewhere. However, opportunities for NGO and national and local government representatives to offer unfettered strategic insights are required to ensure projects offer locally-appropriate solutions (Leventon et al., 2015).

Donors must accept that empowering stakeholders through co-production may result in their own disempowerment (Chambers, 1995). Barriers to this may be created when invisible belief systems mean donors hold unfavourable cognitive framings of other stakeholders (VeneKlasen and Miller, 2002). Positive perceptions of government representatives require that they avoid malpractice. A recent spate of arrests followed allegations that public officials in Malawi have been systematically misusing public funds (Anders, 2015). Such incidents make donors wary of trusting governments with project resources and taking steps to enhance their capacity to do so.

7. Conclusion

Study of projects that pursue CCD triple-wins in Malawi has revealed that donor agencies are driving design processes and that other stakeholders are only selectively recognised. Opportunities for local people to participate and achieve recognition are particularly constrained. This results in procedural injustices but may also restrict project abilities to achieve effectiveness, efficiency and distributive justice benefits. Considerable overlap

between stakeholders' 'revealed' priorities could help advance CCD. However, divergent worldviews and suppression of 'true' preferences could lead to misrecognition and prevent projects from improving local peoples' lives. Visible, hidden and invisible forms of power create barriers to stakeholder participation and recognition in CCD design.

Policymakers and practitioners can overcome these barriers and facilitate patterns of procedural justice if they: put local priorities first; make participatory assessments robust and reflexive; take steps to reconcile worldviews; and harness co-production between professional stakeholders. However, the institutionalisation of expert knowledge as the appropriate means to 'solve' CCD design is at odds with these recommendations as well as the value plurality and complexity in the CCD context. In order to create pathways towards procedural justice, policymakers must avoid making design decisions on the basis of epistemological certainties, accept that CCD has no definitive reality and embrace discursive solutions. The development and improvement of tools to assist CCD decision-making in the context of uncertainty will be crucial. Research findings and lessons presented here are crucial to facilitate CCD project design that challenges, rather than exacerbates, socio-cultural and political drivers of underdevelopment.

References

Adger, W.N., Paavola, J., Huq, S. and Mace, M. 2006. Fairness in adaptation to climate change. MIT Press.

Alkire, S. 2005. Valuing freedoms. Oxford University Press.

Anders, G. 2015. The normativity of numbers in practice. Social Anthropology. **23**(1), pp.29-41.

Arnstein, S.R. 1969. A ladder of citizen participation. Journal of the American Institute of planners. **35**(4), pp.216-224.

Atela, J., Quinn, C., Minang, P. and Duguma, L. 2015. Implementing REDD+ in the context of integrated conservation and development projects. Land Use Policy.**48,** pp.329-340.

Awono, A., Somorin, O.A., Atyi, R.E.A. and Levang, P. 2014. Tenure and participation in local REDD+ projects. Environmental Science and Policy. **35**, pp.76-86.

Babbie, E. 2008. The Basics of Social Research Belmont: Thomson Wadsworth

Barrett, S. 2013. Local level climate justice? Global Environmental Change, **23**(6), pp.1819-1829.

Bours, D., McGinn, C. and Pringle, P. 2014. Design, Monitoring And Evaluation In A Changing Climate. Oxford: UKCIP.

Bowen, A and S. Fankhauser. 2011. Low-carbon development for Least Developed Countries. Oxfam Policy and Practice, **7**(2), pp.33-56.

Boyd, E., May, P., Chang, M. and Veiga, F.C. 2007. Exploring socioeconomic impacts of forest based mitigation projects. Environmental Science and Policy. **10**(5), pp.419-433.

Christian Aid (CA). No Date. Enhancing Community Resilience Project Design Document. Lilongwe.

Chahim, D. and Prakash, A. 2014. NGOization, foreign funding, and the Nicaraguan civil society. VOLUNTAS: **25**(2), pp.487-513.

Chambers, R. 1995. Poverty and livelihoods. Environment and Urbanization. **7**(1), pp.173-204.

Climate And Development Knowledge Network (CDKN) (2016). Inside Stories on Climate Compatible Development [Onine] [Accessed 31/5/2016]. Available from: http://cdkn.org/cdkn_series/inside-story/?loclang=en_gb
Cook, B. and Kothari, U. 2001. Participation: The New Tyranny. London: Zed.
Corbera, E., Kosoy, N. and Tuna, M.M. 2007. Equity implications of marketing ecosystem services in protected areas and rural communities. Global Environmental Change. **17**(3), pp.365-380.
Cromberg, M., Duchelle, A.E. and Rocha, I.D.O. 2014. Local participation in REDD+. Forests. **5**(4), pp.579-598.
Concern Universal (CU). No Date. DISCOVER Project Design Document. Lilongwe.
Curry, J.A. and Webster, P.J. 2011. Climate science and the uncertainty monster. Bulletin of the American Meteorological Society. **92**(12), pp.1667-1682.
Dedza District Government (DDG). 2013. District Development Plan 2013-2018. Dedza.
DfID. 2011. DfID's Approach to Value for Money. London.
DfID. No Date. Enhancing Community Resilience Programme Summary Business Case. London.
Devarajan, S. 2013. Africa's statistical tragedy. Review of Income and Wealth, **59**(S1), pp.S9-S15.
DISCOVER. 2012. Participatory Vulnerability and Capacity Assessment Report. Lilongwe.
D-maps. 2016. Malawi boundaries/districts map. [Online] [Accessed 31/5/2016]. Available from: http://www.d-maps.com/carte.php?num_car=4778&lang=en
Dodman, D. and D. Mitlin. 2013. Challenges for community-based adaptation. Journal of International Development, **25**(5), pp.640-659.
Dyer, J.C., Leventon, J., Stringer, L.C., Dougill, A.J., Syampungani, S., Nshimbi, M., Chama, F. and Kafwifwi, A. 2013. Partnership models for climate compatible development. Resources. **2**(1), pp.1-25.
ECRProject. 2011. PVCA Checklist. Lilongwe.
ECRProject. 2012. PVCA Consolidated Report. Lilongwe.
Ellis, K., Cambray, A. and Lemma, A. 2013. Drivers and challenges for climate compatible development. CDKN Working Paper. London .
Fairclough, N. 1992. Discourse and text. Discourse and Society. **3**(2), pp.193-217.
Freeman, R.E. 1984. Strategic Management. Boston: Pitman.
Gaventa, J. 2006. Finding the spaces for change. IDS bulletin. **37**(6), p23.
Glaser, B.G. and Strauss, A. 1967. The Discovery Of Grounded Theory. Chicago: Aldine.
Government of Malawi (GoM). 2006. Malawi's National Adaptation Programme of Action. Lilongwe.
Government of Malawi (GoM). 2011. Malawi Growth and Development Strategy II. Lilongwe.
Government of Malawi (GoM). 2012. Naional Climate Change Policy. Lilongwe.
Granda, P. 2005. Carbon sink plantations in the Ecuadorian Andes. Acción Ecológica.
Gustavsson, M., Lindström, L., Jiddawi, N.S. and de la Torre-Castro, M. 2014. Procedural and distributive justice in a community-based managed Marine Protected Area in Zanzibar, Tanzania. Marine Policy. **46**, pp.91-100.
Hulme, M. 2011. Why We Disagree About Climate Change. Cambridge: University Press.
Hurlbert, M. and Gupta, J. 2015. The split ladder of participation. Environmental Science and Policy. **50**, pp.100-113.
Intergovernmental Panel On Climate Change (IPCC). 2014b. Climate-Resilient Pathways. In: IPCC (eds). Climate Change 2014: Impacts, Adaptation, and Vulnerability. Cambridge University Press.
IPCC. 2014a. Glossary. In: IPCC (eds). Climate Change 2014: Impacts, Adaptation, and Vulnerability. Cambridge University Press.
International Climate Fund (ICF). No Date. International Climate Fund Implementation Plan 2011/12- 2014/15.
Inglehart, R. 1971. The silent revolution in Europe. American Political Science Review. **65**(04), pp.991-1017.
Jefferies, D., Warburton, H., Oppong-Nkruma, K. and Freduh Antoh, E. 2005. Wealth Ranking Study of Villages in Peri-Urban Areas in Kumasi, Ghana. [Online] [Accessed

31/5/2016]. Available from: www.reading.ac.uk/ssc/n/resources/Docs/QQA/cs6_kuma.pdf
Jindal, R., Swallow, B. and Kerr, J. 2008. Forestry-based carbon sequestration projects in Africa. Natural Resources Forum, 32(2), pp.116-130.
Käkönen, M., L. Lebel, K. Karhunma, V. Dany and T. Thuon. 2015. Rendering climate change governable in the Least-Developed Countries. Forum for Development Studies, **41**(3), pp.351-376.
Kalame, F.B., Kudejira, D. and Nkem, J. 2011. Assessing the process and options for implementing NAPAs. Mitigation and Adaptation Strategies for Global Change. **16**(5), pp.535-553.
Kasungu District Government (KDG). 2013. District Development Plan 2013-2018. Kasungu.
Klein, R. J., E. L. F. Schipper And S. Dessai. 2005. Integrating mitigation and adaptation into climate and development policy. Environmental Science and Policy, **8**(6), pp.579-588.
Larrazábal, A., McCall, M.K., Mwampamba, T.H. and Skutsch, M. 2012. The role of community carbon monitoring for REDD+. Current Opinion In Environmental Sustainability. **4**(6), pp.707-716.
Leventon, J., Dyer, J.C. and Van Alstine, J.D. 2015. The private sector in climate governance. Journal of Cleaner Production. **102**, pp.316-323.
LTS International (LTSI). 2014. ECRP Mid-term Evaluation. Edinburgh.
Mathur, V.N., Afionis, S., Paavola, J., Dougill, A.J. and Stringer, L.C. 2014. Experiences of host communities with carbon market projects. Climate Policy. **14**(1), pp.42-62.
Mitchell, T. and Maxwell, S. 2010. Defining climate compatible development. London: CDKN.
Mohan, G. 2001. Beyond participation. In: Cook, B. and Kothari, U (eds). Participation: The New Tyranny. London: Zed.
Mustalahti, I., Bolin, A., Boyd, E. and Paavola, J. 2012. Can REDD+ reconcile local priorities and needs with global mitigation benefits? Ecology and Society, **17**(1).
Mutabazi, K.D., Sieber, S., Maeda, C. and Tscherning, K. 2015. Assessing the determinants of poverty and vulnerability of smallholder farmers in a changing climate. Regional Environmental Change. pp.1-16.
Malawi Vulnerability Assessment Committee (MVAC). 2005. Malawi Baseline Livelihood Profiles. Lilongwe.
Nsanje District Government (NDG). 2014. District Development Plan 2014-2019. Nsanje.
Nsanje District Government (NDG). 2015. District Socio-Economic Profile. Nsanje.
Nyong, A., Adesina, F. and Elasha, B.O. 2007. The value of indigenous knowledge in climate change mitigation and adaptation strategies in the African Sahel. Mitigation and Adaptation Strategies for Global Change. **12**(5), pp.787-797.
Peskett, L., Huberman, D., Bowen-Jones, E., Edwards, G. and Brown, J. 2008. Making REDD Work For The Poor. Poverty Environment Partnership.
Phiri, A. 2010. Resilience to Climate Variability and Change. Report prepared for DfID.
Picot, H. and Moss, N. 2014. The Sustainable Development Goals: Will they deliver climate compatible development for vulnerable countries? CDKN Working Paper.
Pieterse, J.N. 2010. Development Theory. London: Sage.
Raymond, C.M., Fazey, I., Reed, M.S., Stringer, L.C., Robinson, G.M. and Evely, A.C. 2010. Integrating local and scientific knowledge for environmental management. Journal of Environmental Management. **91**(8), pp.1766-1777.
Reid, H., Cannon, T., Berger, R., Alam, M. and Milligan, A. 2009. Community-based adaptation to climate change. Participatory Learning and Action 60. London: IIED.
Resodudarmo, I., Duchelle, A., Ekaputri, A. and Sunderlin, W. 2012. Local hopes and worries about REDD+ projects. Analysing REDD+. Bogor: CIFOR.
Schlosberg, D. 2007. Defining Environmental Justice. New York: Oxford University Press.
Sen, A.K. 2001. Development as Freedom. Oxford: University Press.
Sen, A.K. 2009. The Idea of Justice. Harvard University Press.
Sova, C., Vervoort, J., Thornton, T., Helfgott, A., Matthews, D. and Chaudhury, A. 2015. Exploring farmer preference shaping in international agricultural climate change adaptation regimes. Environmental Science and Policy. **54**, pp.463-474.
Spiro, P.J. 2002. Accounting for NGOs. Chicago Journal of International Law. **3**, pp.161-169.

Stringer, L.C., Dougill, A.J., Mkwambisi, D.D., Dyer, J.C., Kalaba, F.K. and Mngoli, M. 2012. Challenges and opportunities for carbon management in Malawi and Zambia. Carbon Management. **3**(2), pp.159-173.

Swedlund, H.J. 2013. From donorship to ownership? Public Administration and Development. **33**(5), pp.357-370.

Tanner, T., A. Mensah, E. T. Lawson, C. Gordon, R. Godfrey-Wood and T. Cannon. 2014. Political economy of climate compatible development. IDS Working Paper No. 446.

Teddlie, C. and Yu, F. 2007. Mixed methods sampling. Journal Of Mixed Methods Research. **1**(1), pp.77-100.

Tompkins, E. L., A. Mensah, L. King, T. K. Long, E. T. Lawson, C. W. Hutton, V. A. Hoang, C. Gordon, M. Fish and J. Dyer. 2013. An investigation of the evidence of benefits from climate compatible development. Centre for Climate Change Economics and Policy Working Paper No. 124.

Tschakert, P. 2009. Digging deep for justice. Antipode. **41**(4), pp.706-740.

United Nations Framework Convention on Climate Change (UNFCCC). 2006. The Kyoto Protocol. Kyoto.

UNFCCC. 2011. Cancun Agreements. Cancun.

VeneKlasen, L. and Miller, V. 2002. New Weave of People, Power and Politics. Oklahoma: World Neighbors.

Whitfield, L. 2008. The Politics of Aid. Oxford University Press.

Biographies

Benjamin T. Wood is PhD candidate at the Sustainability Research Institute, University of Leeds, funded by the Centre for Climate Change Economics and Policy. He holds an MSc Sustainability (Climate Change) from the University of Leeds and has over 4 years' experience working in climate change policy advocacy. Through his doctoral research, Ben is evaluating the social justice implications of two donor-funded projects which pursue climate compatible development goals in Malawi.

Andrew J. Dougill is Professor of Environmental Sustainability and Dean of Faculty of Environment at the University of Leeds, UK. He is a dryland environmental change researcher who has developed research approaches that integrate a range of disciplines including soil science, ecology, development studies and environmental social sciences. He has expertise in leading the design and implementation of inter-disciplinary 'problem-based' research projects focused on sustainability issues at range of scales. His work has developed innovative research methodologies for using scientific approaches together with local participation to ensure locally relevant research outputs across dryland Africa.

Claire H. Quinn is an Associate Professor in the Sustainability Research Institute, University of Leeds. She is an environmental social scientist with over 15 years of experience working on interdisciplinary projects in Africa and the UK. Her research interests lie at the interface between social and agricultural dimensions of environmental change and sustainability. Specifically, her focus is on the livelihoods, vulnerability and adaptive capacity of farmers, and their relationships with governance, ecosystem services and landscapes, and supply chains.

Lindsay C. Stringer is Professor in Environment and Development at the University of Leeds. Lindsay's research advances understanding of human-environment relationships focusing on: 1) the links between livelihoods and environment; and 2) science, policy and environmental governance and the practical and policy mechanisms that can advance sustainable development. Her work is interdisciplinary and uses theories and methods from both the natural and social sciences.