Exploring power and procedural justice within Climate-Compatible Development project design: whose priorities are being considered?

Benjamin Wood, Andrew Dougill, Claire Quinn and Lindsay Stringer

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List of Acronyms

Acronym	Name
CCD	Climate-Compatible Development
ECRP	Enhancing Community Resilience Programme
DISCOVER	Developing Innovative Solutions with Communities to Overcome Vulnerability through Enhanced Resilience Project
ECRP-CA	Enhancing Community Resilience Project
DfID	UK Department for International Development
NGO	Non-governmental organisation
PVCA	Participatory Vulnerability and Capacity Assessment

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 the preferences of different stakeholders operating across global, national and local scales is important for revealing: how the concept contends with patterns of socio-cultural and political oppression which cause patterns of development and; if it is being used instrumentally. However, the literature has yet to explore who is 'driving' CCD design. We address this research gap by exploring procedural justice and power within the design of two donor-funded projects that pursue CCD triple-wins in Malawi. Household surveys, semi-structured interviews and documentary material were analysed using a framework developed to evaluate procedural justice and its links to power in CCD.

Findings show that donor agencies are driving design processes and involving other stakeholders selectively. Local people's participation has been particularly constrained. Whilst considerable overlap existed between stakeholders' 'revealed' priorities for CCD, invisible power dynamics encourage the suppression of 'true' preferences, which betrays the benefits of knowledge co-production. Visible, hidden and invisible forms of power have created barriers to procedural justice in CCD design. We present four recommendations to help policymakers and practitioners overcome these barriers: 1) put local priorities first; 2) make participatory assessments robust and reflexive; 3) take steps to reconcile different world views; and 4) harness co-production between professional stakeholders.

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1. Introduction

Climate-Compatible Development (CCD) has been proposed as a conceptual framework for mainstreaming climate change mitigation and adaptation within development efforts. It was defined by Mitchell and Maxwell (2010: 1) as "development that minimises the harm caused by climate impacts, while maximising the many human development opportunities presented by a low emissions, more resilient future". Key terms related to the concept of CCD are defined in Table 1. These broad, mainstream definitions provide a useful conceptual lens through which to consider CCD and have been influential in shaping its formation. However, it is acknowledged that these terms are often understood diversely, used interchangeably and co-opted for instrumental purposes within research and practice (e.g. Ireland, 2012).

Table 1: Definition of key terms related to CCD

Development	A function of the socio-cultural, political and economic freedom of individuals and groups (Sen, 2001).
Mitigation	Human action to reduce the sources or enhance the sinks of greenhouse gases (Agard and Schipper, 2014).
Adaptation	Anticipatory or reactive actions which enable adjustment to actual or expected climate and its effects (Agard and Schipper, 2014).
Vulnerability	A function of exposure to climate and development shocks, sensitivity, and adaptive capacity (Agard and Schipper, 2014).
Triple-wins	The simultaneous achievement of development, mitigation and adaptation benefits (Mitchell and Maxwell, 2010).

Multi-stakeholder working between actors across global, national and local scales is required for CCD benefits to be delivered (Stringer et al., 2014). Stakeholders are defined here as actors or organisations with an interest in, or who are impacted by, CCD (adapted from Freeman 1984). They include donor agencies, non-governmental organisations (NGOs), private sector organisations, researchers, community-based organisations (CBOs), national and local governments, consultants, technical experts and local people (Bryan et al., 2013; Wood et al., 2015). Contributions from different stakeholders working across diverse sectors and

scales allows linkages between development, mitigation and adaptation to be harnessed (Stringer et al., 2012); trade-offs to be minimised (Kaur and Ayers, 2010); and opportunities to be exploited (Corbera et al., 2007). However, CCD multi-stakeholder working is not without its challenges (e.g. Pinkse and Kolk, 2012; Harvey, 2010).

Procedural justice requires that stakeholders are able to participate and have their preferences recognised (Schlosberg, 2007), in this case, through CCD project design. Participation refers to the opportunities that individuals and groups have to take part in decision-making (Hurlbert and Gupta, 2015); recognition is achieved when their identities, cultures and values are acknowledged (Tschakert, 2009). Procedural justice can create pathways to distributive justice: views considered within decision-making processes shape subsequent patterns of societal benefits and costs (Suiseeya and Caplow, 2013). However, with only a few exceptions (e.g. Fisher, 2015; Paavola and Adger, 2006; Comim, 2008), procedural justice has been overlooked within climate change research.

There have been few attempts to evaluate whether and how CCD design reconciles the preferences of multiple stakeholders (e.g. Mathur et al., 2014; Sova et al., 2015). Empirical insights from project-level initiatives which explicitly pursue triple-wins are particularly scarce. Consequently, it is unclear to what extent CCD project designs are being configured by bottom-up, organic and/or top-down, paternalistic belief-systems. Also seldom considered are relationships between procedural justice and power — networks of societal institutions (formal and informal) and resources. Yet these networks delimit the boundaries and scope of procedural justice opportunities and therefore warrant consideration (Gaventa, 2006). A shortage of tools and frameworks for holistically exploring procedural justice in the context of power betrays this.

Consideration of who is 'driving' CCD design has intrinsic value but it is also important because development, mitigation and adaptation outcomes are experienced differently across diverse temporal and spatial scales (Klein et al., 2007). Understanding whether and how different components are prioritised and

balanced against one another within design processes can help signpost: whether and when the concept is being used instrumentally and; which individuals and groups might 'win' and 'lose' as a result of its operationalisation. CCD professes to be a 'development first' approach which aims to help people improve their lives in the face of climate threats without exacerbating these threats for current and future generations (Picot and Moss, 2014). However, limited consideration of procedural justice and its links with power means it is uncertain how projects contend with wider patterns of socio-cultural and political oppression which have caused patterns of underdevelopment (Sen 2001).

This article therefore 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 the procedural justice implications of CCD in the context of power; 2) identify different stakeholders' priorities for CCD project design; and 3) evaluate which stakeholders were recognised by, and able to participate in, design processes.

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

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 which enable projects (e.g. finance from donor agencies; knowledge from researchers and consultants; implementation expertise from NGOs and CBOs). Consequently, their voices are often considered through CCD design processes (Sova et al., 2015; Mathur et al., 2014).

Social justice requires that the individuals and groups which projects intend to benefit can pursue ends which they value (Sen, 2009). Just CCD therefore requires that local people can participate in (if they so choose), and have their preferences recognised through, design processes. Involving local people in design can: help them expand their intellectual capabilities (Alkire, 2005); enable understanding of

conditions which facilitate their engagement in implementation; and help ensure that project outcomes improve their lives (Gustavsson et al., 2014; Huq and Khan, 2006). However, achieving these benefits is unlikely when local people are involved in a tokenistic manner and/or populations are considered socially homogenous or knowledge poor. In such cases, vulnerable individuals and groups can even be detrimentally affected (Cook and Kothari, 2001).

Successfully achieving CCD wins is often contingent on multi-stakeholder engagement in project design (Harvey, 2010), which can also help reduce implementation costs (Skutsch and Ba, 2010; 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 (e.g. REDD+, the Clean Development Mechanism and voluntary carbon markets) mandate that stakeholder preferences are considered at the outset of interventions with potential to create CCD outcomes (UNFCCC, 2006; UNFCCC, 2011; CCBA, 2013).

CCD operates in a context where multiple forms of uncertainty mean a plurality of values and interests coexist and conflict with one another (Sen, 2009; Curry and Webster, 2011). Debate about what is to be developed, and how development should take place, is commonplace, irrespective of concerns about climate change (Sachs, 1997; Sen, 2001; Easterly and Easterly, 2006). Key issues related to how mitigation and adaptation should proceed are contentious: disagreement between nation-states over both has caused global climate negotiations to stall (Ngwadla, 2014). Often, developing nations prioritise adaptation and development over mitigation in order to reduce global inequalities (Ibid.; Ayers and Huq, 2009). By contrast, organisations developing carbon market projects have prioritised mitigation goals (Boyd et al., 2009).

Professional stakeholders have collaborated successfully to design CCD, reconciling diverse perspectives (Corbera et al., 2007; Dyer et al., 2013). However, when projects are not led by public sector organisations, national and local governments are sometimes absent from design processes. Projects funded through voluntary

carbon markets are not obliged to involve host governments (Benessaiah, 2012) and have not always considered their preferences (Mathur et al., 2014). Likewise, private sector CSR activities have been designed in isolation from government and relevant NGO and civil society representatives (Leventon et al., 2015). Questions have been raised about the accountability of projects which operate without host government involvement (Spiro, 2002), as well as their implications for state sovereignty (Whitfield, 2008). Moreover, without government oversight: lesson-sharing from CCD project implementation may be limited; project contributions towards national CCD trajectories may go unrecognised; and project goals may duplicate or clash with one another.

Local people often desire a prominent role in CCD decision-making processes (Cromberg et al., 2014; Atela et al., 2015). Yet evidence of design which has successfully reconciled professional stakeholders' and local people's preferences is scarce. Awono et al. (2014) showcase an exception of village residents targeted by carbon forestry projects in Cameroon who were encouraged to propose ways in which their livelihoods could be improved. As a consequence, activities such as housing, beekeeping and agroforestry were advocated for by local people, and some of these activities were incorporated within project design. 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).

Nevertheless, significant evidence suggests that CCD design is often 'top-down' and 'expert-led'; local-level involvement is minimal and decisions are imposed on target populations (Kalame et al., 2011; Mustalahti et al., 2012; Sova et al., 2015; Atela et al., 2015; Leach and Scoones, 2013). Sometimes, 'expert' knowledge imported from abroad is unsuitable within local contexts. For example, Leventon et al. (2015) reflect on how conservation agriculture techniques from Zimbabwe were incorporated within CCD project design in Zambia; techniques were incongruous with local conditions and local people achieved reduced crop yields compared to those achieved before the project began.

Key design decisions (e.g. identifying a project's aim and objectives, implementation timescales and so on) are often taken prior to any community-engagement (Kalame et al., 2011; Awono et al., 2014). This can occur when climate finance funds interventions because upward accountability to international frameworks outweighs downward accountability to local people (Awono et al., 2014; Boyd, 2009). Professional stakeholders have justified limited local involvement in CCD design by stressing that it can encourage unrealistic expectations around projects (Cromberg et al. 2014).

Even when local people are involved at the design stage, methodological limitations can obscure and conceal their preferences. Discourses emphasising the merits of 'participation' have led to various tools being developed for assessing local priorities. Tools increasingly encourage local people to self-assess their own vulnerability (Van Aalst et al., 2008). However, vulnerability parameters are often pre-determined and opportunities to suggest solutions for overcoming vulnerability and/or evaluate intervention designs are withheld (Alkire, 2005). Moreover, the expense involved in conducting participatory assessments can mean only limited 'samples' of local people have opportunities to take part (Kalame et al., 2011).

Restricted participatory opportunities can result in local people's misrecognition because their priorities are ill-considered within design (Kalame et al., 2011; Hardee and Mutunga, 2010; Atela et al., 2015). For example, Mustalahti et al. (2012) show that a carbon forestry project in Tanzania failed to integrate local priorities (water access, food security, housing, improved infrastructure, income-generating activities) because they were not conducive with mitigation goals. Likewise, misrecognition also occurs when participatory opportunities are focussed at, or aggregated to, the community-level and diverse and/or dissenting preferences are overlooked (Bours et al., 2014).

Local people's recognition is linked to CCD having their informed consent (Resodudarmo et al., 2012). Strictly speaking, this would mean people choosing activities to participate in based upon their full understanding of all available information pertaining to these activities (Alkire 2005). However, low education levels

may complicate this (HDI 2015). Moreover, worldviews of local people in developing countries are often grounded in indigenous values which can be at odds with western science (Hulme, 2011). Gaining informed consent for CCD on such stringent terms, especially mitigation activities (which require an understanding of the causes of climate change), may therefore be difficult.

Research has yet to holistically explore how power influences stakeholder participation and recognition within CCD design. Three forms of power can be distinguished: visible; hidden; and invisible. Visible power refers to the formal rules, structures and institutions which govern decision-making processes. Whether different stakeholders can engage with these visible decision-making processes hinges on their capacity and capabilities to do so. Hidden power concerns 'who' is able to make decisions about 'what'. Invisible power constitutes the ideological and psychological boundaries of action: belief systems which shape whether different stakeholders consider themselves and others worthy of recognition and participatory opportunities (VeneKlasen and Miller, 2002).

Despite its significance, consideration of power is limited and incomplete. Some studies evaluate stakeholders' capacities to engage in formal decision-making processes: visible power. For example, staffing and resource shortages and insufficient guiding policy frameworks are used to explain governments' non-involvement in CCD design (Byigero et al., 2010). Limited local participation in project design is attributed to low education levels and opportunity costs of engaging in alternative livelihood activities (Gustavsson et al., 2014; Mathur et al., 2014). Local people's restricted access to decision-making processes (hidden power - see above) has also been used to explain their non-involvement. However, invisible power is seldom considered. Sova et al. (2015) are an exception: they find that local concerns are considered of secondary importance to 'expert' knowledge within national adaptation planning in seven Least Developed Countries.

Evidence shows that despite being crucial for ensuring socially-just, effective and efficient CCD, reconciling stakeholder perspectives within project design processes is challenging. Non-involvement is sometimes explained by visible and hidden forms

of power. However, barriers to procedural justice may be concealed by restricted consideration of invisible power. In the following section, a theoretical framework is presented which facilitates holistic exploration of power and procedural justice within CCD project design.

3. Research approach and methods

3.1 Research context and case study approach

Malawi was chosen as a research location because: a) it is amongst the world's most vulnerable countries; and b) projects which pursue CCD goals are already being implemented in the country. Malawi is considered to be "the most climate vulnerable country in mainland Africa" (Barrett, 2013: 1821). The country also faces stark development challenges (UNDP, 2012). Malawian populations could therefore benefit substantially from CCD projects which aim to generate development gains while reducing exposure and sensitivity to climate impacts.

Malawi's policy infrastructure facilitates CCD projects by encouraging the use of sub-national projects to advance development, mitigation and adaptation (GoM, 2012). 12 projects which pursued CCD goals were identified nationally via 24 semi-structured interviews with climate and development professionals (completed in April 2014). Integrated climate and development project documentation, found using internet searches, was used to identify initial interviewees. A snowball sampling approach distinguished additional respondents (Atkinson and Flint, 2001).

The *Developing Innovative Solutions with Communities to Overcome Vulnerability through Enhanced Resilience* (DISCOVER) project and *Enhancing Community Resilience Project* (ECRP-CA) were chosen for further study because they have the most wide-reaching procedural justice implications of the 12 identified projects. The selected projects are larger (DISCOVER targets 305,000 beneficiaries; ECRP-CA targets 298,500) and have received more financial support (£21.5million over a five-year period combined) than other projects within the initial sample. Together, they

form the *Enhancing Community Resilience Programme* (ECRP), which is financed by UK, Norwegian and Irish Government grants.

Both projects began in September 2011 and transcend the agriculture, forestry and energy sectors. Both 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. Project activities are intended to be carbon neutral or able to contribute to carbon savings. Links between the projects' activities and development, mitigation and adaptation goals are outlined in Table 2. Particularly vulnerable households — female-headed, elderly, extremely resource-poor, those with disabled or chronically ill adults — are primarily targeted by project activities (CU, No Date; CA, No Date).

ECRP-CA and DISCOVER operate across seven and five districts in Malawi, respectively (Figure 1). Diverse district study sites were chosen for this research 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 (ECRP-CA district) and Nsanje (both projects) districts were selected based on analysis of documentary material (MVAC, 2005; CA, No Date; CU, No Date; GoM, 2006) and discussions with project staff. Dedza and Kasungu have similar socio-economic structures (e.g. dominant livelihood activities, average household resource wealth, access to agricultural markets) and average rainfall patterns (MVAC 2005). Nsanje is regarded to have a lesser socio-economic status than Dedza and Kasungu because agricultural productivity is lower, it is isolated from markets and average household incomes are significantly lower (MVAC 2005). The district is considered one of the most climate vulnerable in Malawi, with populations acutely affected by floods and droughts (NDG, 2015).

In each district, two villages were chosen as study sites. 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; targeted with similar project activities. However, in Dedza and Kasungu, two villages with different average levels of household resource wealth were purposively chosen based on field staff advice.

This allowed consideration of whether and how household priorities for project design differed accordingly.

Working with field staff was crucial for securing introductions to, and building trust with, households in study villages. However, information provided by field staff may have been biased in ways unbeknown to the researcher. In an attempt to reduce possible bias, information obtained from field staff was verified through researcher observations of household resources, wealth ranking exercises (see below) and discussions with local people throughout the process of data collection.

Table 2: Enhancing Community Resilience Programme activities and links to development, mitigation and adaptation goals. Sources: CA (No Date); CU (No Date); surveys conducted with project employees.

ECRP activities	Associated development (D), mitigation (M) and adaptation (A) goals
Agroforestry and afforestation	D: Reduced/ reversed loss of environmental resources M: Protected and increased forest carbon sinks A: Household and farmland protection from flooding and strong winds
Conservation agriculture	D: Improved food security M: Protected and increased soil carbon sinks A: Improved soil moisture and quality enhances households' abilities to deal with dry spells and drought
Small-scale irrigation	D: Improved food security A: Ability to grow food throughout the year increases households' abilities to deal with climate shocks
Livestock production	D: Improved food security; increased income A: Livestock are important safety nets for dealing with climate shocks
Solar light adoption	D: Reduced dependency on unclean, inefficient fuel; electricity access M: Reduced carbon emissions
Improved cookstove adoption	D: Reduced dependency on unclean, inefficient fuel; reduced time spent collecting firewood. M: Protected and increased forest carbon sinks.
Post-harvest management	D: Improved food security
Seed multiplication schemes	D: Improved food security A: Ability to grow food throughout the year increases households' abilities to deal with climate shocks
Village savings and loans associations (VSLAs)	D: Increased income, asset ownership A: Loans and profits provide safety nets for dealing with climate shocks
Nutrition training (DISCOVER only)	D: Improved food security
Village disaster risk reduction trainings	A: Local communities better prepared to respond to climate related disasters
Institutional capacity building to improve preparedness to climate shocks	A: District, sub-District and community governance structures better prepared to respond to mid-term climate hazards
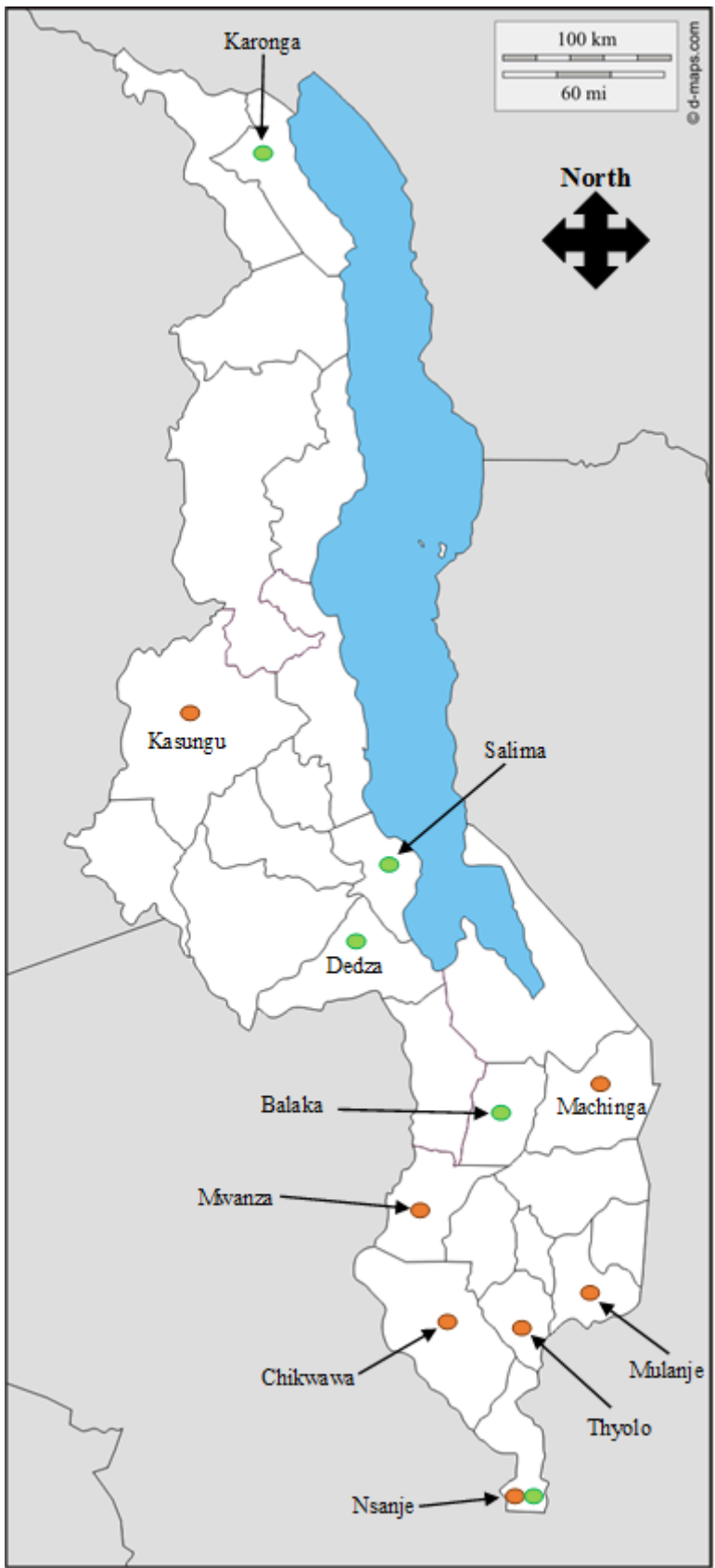
Figure 1: Districts targeted by ECRP-CA (red dots) and DISCOVER (green dots) projects. Adapted from D-maps (2016).

3.2 Material collection and analysis

Data collection took place between September 2014 and May 2015. Information was sought from the range of stakeholders involved in project design. Surveys (n=457) and semi-structured interviews (n=140) were used to gather descriptive data from households across selected village sites. Households were the appropriate data collection unit within villages because projects seek to provide benefits to households rather than individuals (CA, No Date; CU, No Date).

Survey responses were sought from a random sample of 50% of consenting households in each village. Coding techniques were used to analyse survey data and identify key themes related to household recognition and participation (Babbie, 2008). A purposive sampling approach was then adopted to select household interviewees for semi-structured interviews in order to follow up on these themes (Teddlie and Yu, 2007). A participatory approach (Jefferies et al., 2005) was used to develop indicators so that the responses of 'less-than-average wealth', 'average-wealth' and 'higher-than-average wealth' households could be distinguished. Levels of participation within wealth rankings are seen as positively correlated to their precision and local appropriateness (Chambers, 1994).

Semi-structured interviews were also used to gather qualitative data from 32 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 opportunities to articulate these preferences and shape decision-making.

Some interviewees guided the researcher towards documents which supported, or provided more detail on, their responses. The following documentary material was collected and analysed: six programme and/or project design documents (ECRP-CA, 2012; DFID, No Date; DISCOVER, 2012; CA, No Date; CU, No Date; ECRP-CA, 2011); three donor government policy documents (DfID, 2011b; ICF, No Date; DfID, 2011a); four policy documents produced by the Malawian national government

(GoM, 2006; GoM, 2012; MVAC, 2005; GoM, 2011); five policy documents produced by Malawian district governments (DDG, 2013; NDG, 2014; NDG, 2015; KDG, 2013); and two consultancy reports (LTSI, 2014; Phiri, 2010).

Content analysis (Babbie, 2008) and critical discourse analysis techniques were used to analyse the data (Fairclough, 1992). Univariate analysis techniques were used to analyse statistics derived through amalgamating survey data (Babbie, 2008). A framework which builds upon Gaventa's (2006) 'power cube' approach was developed to evaluate the extent to which stakeholder priorities were reconciled through ECRP project design (Figure 2). This allowed for exploration of whether and how different stakeholders were afforded recognition and participatory opportunities within the project design 'space'.

Stakeholder opportunities to participate and have their preferences recognised within ECRP *Design Space* were considered. The *Design Space* comprised those opportunities and channels through which programme and project design was determined. Hurlbert and Gupta's (2015) 'split ladder of participation' was used to analyse the depth of participatory opportunities which existed. Hurlbert and Gupta's typology is an advance on hierarchical alternatives (e.g. Arnstein, 1969; Choguill, 1996; Pretty, 1995) which consider participation as symptomatic of binary power struggles between governing bodies and citizens. Rather, theirs acknowledges that: participation often comprises collective action involving multiple different stakeholders who 'learn' together (social learning); stakeholders participate for diverse reasons; and the appropriate form of participation depends on the policy problem being addressed.

Figure 2 sets out four quadrants of the split ladder. Table 3 describes each quadrant. Locating participatory opportunities within different quadrants allows appraisal of whether they are circumstantially appropriate and pertinent to the policy problem being addressed. ECRP design represented an unstructured problem because: knowledge of future climate impacts was (and remains) uncertain (ECRP, No Date); and stakeholders held diverse preferences for CCD design. Therefore, the

achievement of procedural justice required that decision-making was based on significant deliberation between stakeholders (see Quadrant 4, Table 3).

Issues of recognition and participation feed back on one another. An inductive approach was used to identify instances within the data where local people's identities, cultures and values were (mis)recognised. Constant comparison techniques were used to identify linkages between individual instances, allowing patterns of (mis)recognition to emerge (Glaser and Strauss, 1967).

Procedural justice spaces emerge, and are contested at, diverse governance levels (Gaventa, 2006). Gaventa's power cube was adapted to reflect the levels at which ECRP decision-making processes occur: international; national; district; group village area; and village. Power delimits the boundaries and scope of procedural justice opportunities. However, it has been ill-considered within research which examines the design of climate and development policy and practice. Visible, hidden and invisible power dynamics within the *Design Space* were considered. Combined use of content analysis and critical discourse analysis techniques enabled identification of visible (content analysis), hidden (content and critical discourse analysis) and invisible power (critical discourse analysis) dynamics.
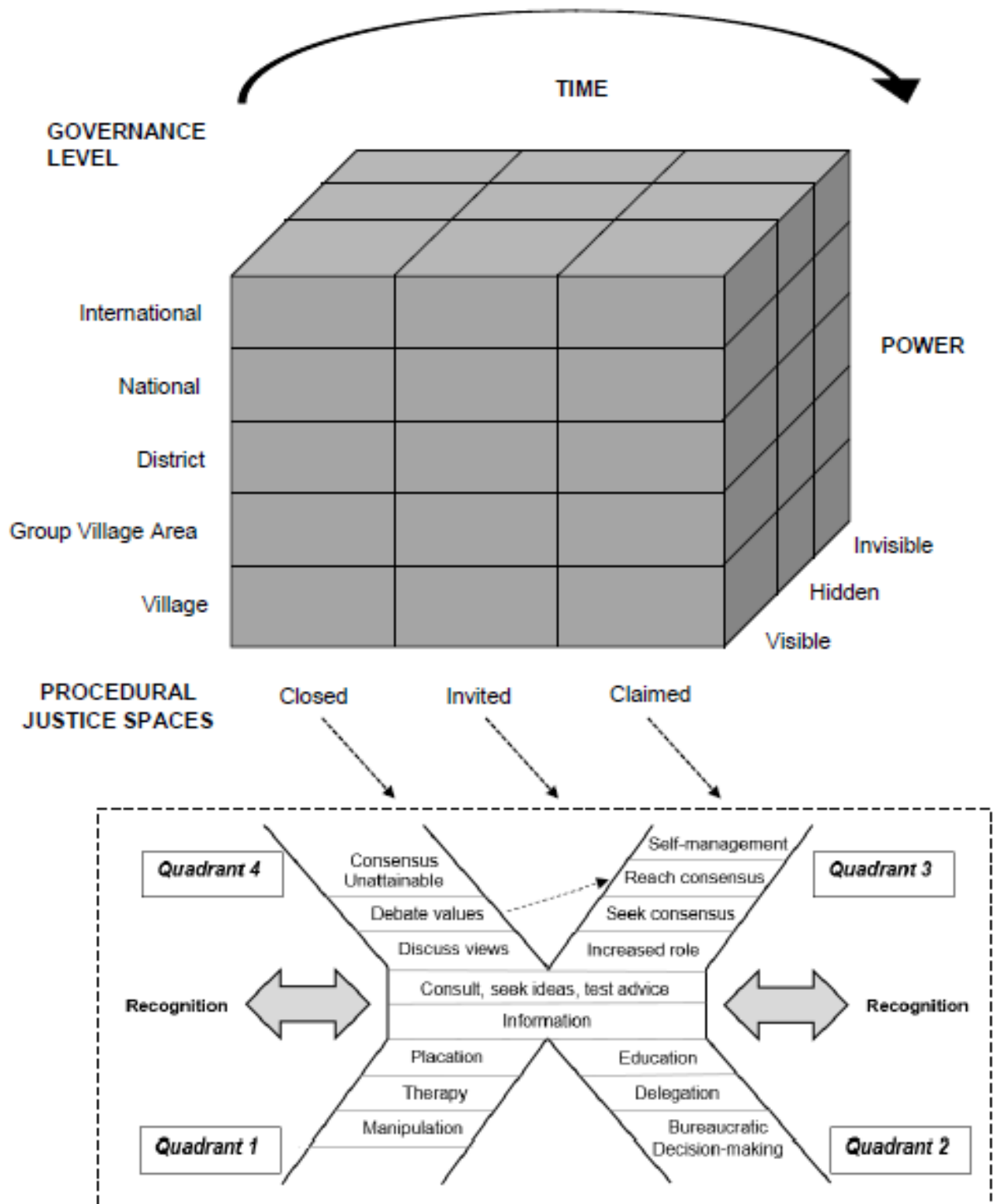
Figure 2: A framework to guide exploration of procedural justice spaces which exist for stakeholders under ECRP projects. Adapted from Gaventa (2006); Hurlbert and Gupta (2015).

Table 3: Quadrants for examining the depth of stakeholder participation within the design of ECRP projects. Adapted from Hurlbert and Gupta (2015).

	Description
Quadrant 1	• Stakeholders disagree over beliefs, values and norms and/or specific approaches for achieving goals. • Information flows one-way, from projects to stakeholders. • Participation often illusory (e.g. rubberstamping) or aimed at adjusting stakeholder values and/or extracting information. • Stakeholders not involved in final decision-making. • Learning between decision-makers and stakeholders is negligible.
Quadrant 2	• Policy problems are structured: there is substantive agreement on norms, principles and aims between stakeholders. • Technocratic decision-making which represents stakeholder interests is possible. • Decision-makers may interact with stakeholders to educate them about the specifics of decisions taken: information flows in one direction only. • Social learning extends to incremental changes and the improvement of existing practices ('single-loop learning').
Quadrant 3	• Policy problems are moderately structured: stakeholders share trust but facts may be uncertain or there is some disagreement over values, norms or approaches for achieving goals. • Stakeholders are highly engaged in the process of decision-making: they have opportunities to shape opinions, ideas and outcomes. They may self-manage projects, autonomously setting goals and being provided with resources for realising them. • Iterative information flows allows assumptions to be reflected on and questioned, allowing for decisions which foster substantive change where required ('double-loop learning').
Quadrant 4	• Policy problems are unstructured: there is great uncertainty in knowledge and value positions are disparate. • Solutions can appear intractable and require significant debate and discussion between stakeholders. • Extensive participatory opportunities are required to develop trust and common understanding. Even then consensus may be unattainable. • Deeply-held value positions and norms are scrutinised, leading to rich understanding of the decision-making context ('triple-loop learning'). • When consensus is reached, subsequent decision-making may be undertaken within Quadrant 3 (shown by dashed arrow connecting Quadrants 3 and 4 in Figure 2).

4. Results

Opportunities for professional stakeholders and local people to participate and have their preferences recognised are set out in turn. For confidentiality purposes, interviewees and survey respondents are anonymised. Only the stakeholder groups that interviewees represent are documented.

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 ECRP was donor-determined: to *"increase the resilience of vulnerable communities to climate variability and change"* (ECRP, No Date). It was conceived to help meet two DfID development goals (see DfID, 2011) within the Malawian context: combatting climate change (ECRP, No Date) and reducing economic poverty (donor agency employee).

In April 2011, donors invited NGOs to propose project designs for implementing ECRP. Through communications with prospective consortia, donors set out a prescriptive overarching framework for project design. Four key principles informed the framework (Table 4). Principles balance upward and downward accountability. They aimed to ensure that: projects are tailored to local conditions; local people can participate in activities and receive significant, long-lasting benefits. However, projects must also provide value-for-money (DfID, 2011) and meet developed country policy goals: upward accountability to donor governments and their tax-paying citizens.

Table 4: Overarching project design framework principles, as prescribed by donors

Principle	Rationale
"Soft", ecosystem-based development and adaptation should be prioritised over *"hard"* engineering-based activities	• *"Cost-effective and more robust than hard measures";* • *"Result in significant benefits";* • *"Socially and institutionally more*

	sustainable" (DfID, No Date); • Enable local participation: *"if we just bring hardware to them, they would not know what to do"* (donor agency employee).
Project activities should involve high levels of local participation	• Helps *"tailor adaptive measures to local circumstances";* • Encourages *"cultures of preparedness";* • Builds social capital (DfID, No Date).
Packages of mutually reinforcing activities should be implemented in villages	• Enables flexibility and the tailoring of projects to *"specific needs and capacities"* of different villages and households (DfID, No Date).
Activities should have climate mitigation co-benefits	• Fit with UK policy goals: 1. Financing low-carbon development across the developing world; 2. Encouraging consensus around an international climate deal (ICF, No Date).

The framework dictated that ECRP projects pursued triple-wins across development, mitigation and adaptation. Donors commissioned a consultant to review disaster risk-reduction and adaptation programmes and projects in Malawi: *"information which would assist in the development of the design"* (Phiri, 2010). 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 *"soft"*, community- and ecosystem-based project activities rather than *"hard"* engineering-based activities (Phiri 2010).

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 ECRP helps the UK to deliver its international climate commitments: collectively, European Union nations must provide $100 billion annually to finance low-carbon development in developing countries by 2020. Funding for low-carbon technologies under ECRP (and leveraged

carbon market finance under DISCOVER – see below) can be counted towards this target (ICF, No Date; donor agency employee). Another UK Government objective is 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 ECRP is being collated to help show that moving towards low-carbon pathways can help enhance global development (ICF, No Date).

ECRP-CA and DISCOVER — the two NGO consortia chosen to implement ECRP — 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"*.

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

However, consortia opportunities to determine projects' strategic aims and objectives were restricted. According to one NGO interviewee: *"over 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 are 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).

Over time, dependency on funding has led to donor project design preferences being institutionalised within NGO practices: hidden power has produced, and been reinforced by, an invisible power dynamic. Five NGO interviewees considered that, in recent years, community-based approaches — 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 which NGOs have expertise in and wish to continue implementing (six NGO employees). Because donor and NGO value positions coalesce, opportunities for social learning are reduced.

Overall, NGOs were afforded Quadrant 3 participation (Figure 2, Table 3): information flows with donors were iterative but consortia members were recognised as technical, rather than strategic, decision-makers; 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 (Table 2) largely reflect national and local government preferences for development and adaptation (GoM, 2006; GoM, 2011; NDG, 2014; KDG, 2013; DDG, 2013). However, improved access to electricity and new cooking technologies were not priority goals for the District Government in Dedza (DDG, 2013). Information produced by national government bodies (e.g. MVAC, 2005) was used to locate projects within Districts most susceptible to climate shocks (2 NGO employees; ECRP, No Date). Climate mitigation, which will reportedly create "*positive local and global socio-economic as well as environmental benefits",* was also considered a priority at national (GoM, 2012: 10) and local levels (two district government employees).

Nevertheless, there was dissatisfaction amongst national government actors, who 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 *"[ECRP] has disrespected the government".* The interviewee rejected consortia suggestions that they held face-to-face talks with government representatives to discuss project design (CU, No Date; 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… they [donors and NGOs] think that government is not there".* 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 have a hand in ECRP. We did not want them 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

Considerable rhetorical attention is paid to the participation and recognition of target households by projects. Local 'participation', 'empowerment' and 'ownership' are mentioned 23, 22 and 24 times, respectively, within ECRP-CA (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 (PVCA) (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 which allowed households to define vulnerability in a locally-appropriate way. Households were also given scope to suggest solutions to climate and development problems (ECRP-CA, 2011). However, they were unable to take any decisions relating to project design: hidden powerlessness. They were recognised only as information providers; PVCA processes encouraged a one-way flow of information from local people to NGOs and donors (ECRP-CA, 2012; DISCOVER, 2012).

The value of PVCA information is limited by small sample sizes. Under ECRP-CA, PVCAs took place in 55 villages from 40 Group Village Areas across Malawi (ECRP-CA, 2012). By 2014, ECRP-CA was operational in 948 villages in 122 Group Villages Areas (LTSI, 2014). Under ECRP-DISCOVER, PVCAs took place in 35 target Group Village Areas (DISCOVER, 2012). By 2014, ECRP-DISCOVER was operational in 1149 villages in 110 Group Villages Areas (LTSI, 2014). Assessments within sample villages involved group exercises in which 20-50 people took part (DISCOVER, 2012; NGO interviewee). Yet, villages can comprise over 1000 people. Sample sizes are not sufficient for findings to be generalised within and between villages. Two NGO employees blamed sampling limitations on limited capacity: *"to do PVCAs in all the villages could take a lot of our time and resources"* (NGO, employee). The visible powerlessness of NGOs therefore 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…the project proposal 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…you cannot say that the results and the project proposal do not speak to each other".* However, according to a different NGO employee, household priorities were considered secondary to those of Western NGO personnel: "e*ach expat wanted his ideas included in the project 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. Given the limited use of PVCA information and reported secondary recognition of local priorities, it is unsurprising that additional resources were not provided to help address sampling limitations. Misrecognition of local people may have translated into invisible power which reinforced their aforementioned visible powerlessness in the *Design Space*.

Despite PVCA sampling limitations and their restricted consideration within decision-making, household survey results show that many strategic design decisions aligned with local priorities. For example, most ECRP development and adaptation goals were highly valued by study village households, as indicated by Tables 5 and 6. Using surveys, we asked households to rate the importance of ECRP development goals using a scale of 0-3: 0 meant goals were perceived to be unimportant for improving the lives of household members; 3 meant goals were perceived as extremely important (Table 5). Similarly, households were also asked to rate how problematic they perceived particular climate shocks to be (Table 6).

Table 5: Importance ratings of ECRP development goals by households (source: 256 household surveys)

Household Type	Improved food and nutrition security	Increased HH 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 wealth households	2.96	2.87	2.76	2.62	2.84	2.91	2.8
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 6: Household perceptions of climate shocks targeted under ECRP (source: 256 household surveys)

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

Interviews conducted with household heads validated these findings. One household head in Kasungu stated: *"our lives will be improved [by ECRP development goals] and as such we feel honoured and respected"*. One household head in Nsanje said: *"I am happy that the project is bringing new ways to deal with weather problems because floods were predicted and we needed help. Without the project the [2015] flooding would have been more severe"*. Another Nsanje household head commented: *"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"*.

However, 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 5). Less-than-average, elderly-headed and female-headed households gave these goals the lowest importance ratings. They routinely rated goals as "not very important" or "not important at all". Electricity access and new cooking technologies' importance ratings were lower-than-average in Nsanje: a district considered amongst the most vulnerable in Malawi (NDG, 2015). One less-than-average household head in Dedza described electricity access as a *"luxury"*. A less-than-average female household head from Nsanje 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"*. Low prioritisation of improved cookstoves may result from limited household awareness of potential benefits. For example, one household interviewee in Nsanje suggested that her neighbours *"are not fully aware of the benefits which improved cooking technologies would bring"*.

Improved water access and availability emerged as a local priority not considered within project design: a development goal which can also contribute to adaptation owing to the sensitivity of water security to flooding and drought in Malawi (GoM, 2006). In one Dedza study village and one Kasungu study village, 24% and 38% of survey respondents respectively considered poor water access and availability to be a significant problem for their households. 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 infrastructure for accessing water but the previous village location had become inhabitable due to its high susceptibility to flooding. Five interviewees in one 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 in the dry season. Large queues form to access them at peak times. Other households commute to a trading centre where the nearest borehole is located. Two interviewees reported that they must 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 water access and availability as an important local priority: *"water, sanitation and hygiene (WASH) were identified as priorities in a number of the communities where we conducted PVCA"* (CU, No Date). However, the consortia decided not to alter project design to incorporate activities aimed at improving water security. This is because *"we do not want to overstretch the set of activities included in DISCOVER"* (CU, No Date). 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*.

5. Discussion

The analytical framework developed and applied here 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 which delimit stakeholders' procedural justice opportunities. To date, tools for conducting procedural justice evaluations have been underdeveloped and CCD research has not holistically considered how power shapes stakeholder participation and recognition. Hence, the framework offers a unique contribution to the CCD literature. Its use focussed data collection and allowed for comparison and amalgamation of data gathered from dissimilar sources. 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 which succeed CCD design can also be evaluated using the framework (e.g. those facilitating stakeholder engagement in implementation and monitoring and evaluation).

In the following, we discuss our results in relation to climate change and development research. Research objectives 2 and 3 are used to guide the

discussion before recommendations for encouraging procedural justice through CCD design project are presented.

5.1 Stakeholder priorities for CCD design

Considerable overlap existed between different stakeholder priorities for ECRP project design. Donors, NGOs and government representatives prioritised the achievement of CCD triple-wins; delivered through packages of mutually-reinforcing community- and ecosystem-based project activities — an increasingly popular approach (Reid, 2015). Local people's preferences for project design translated into the pursuit of double-wins across development and adaptation. Overall, they perceived most ECRP development and adaptation goals as important for improving their lives. Common ground could encourage multi-stakeholder working and therefore constitute a previously unidentified driver for advancing CCD (see Ellis et al., 2013 for other drivers). Stakeholders' dissimilar access to knowledge and resources mean it is difficult for them to achieve CCD goals alone (Dyer et al., 2013).

The contrasting worldviews of local people and professional stakeholders could impede collaborations around mitigation actions which 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 climate and development projects across Africa, South America and Asia show that values placed on low-carbon activities by local people and project implementing partners are often dissimilar (Dyer et al., 2014; Subak, 2000; Jindal et al., 2008; Boyd et al., 2007). In such cases, incorporating mitigation activities within CCD design presents an ethical dilemma which is seldom discussed in existing climate justice debates. If incorporated, populations will unwittingly take action to help solve a problem for which they have negligible responsibility but is already exacerbating their vulnerabilities (Adger et al., 2006). However, as shown here, mitigation activities may be associated with locally-valued benefits. Mitigation finance can also help augment traditional aid funding and provide extra resources for reducing these vulnerabilities (Ellis et al., 2013). Psychological theories suggest that people in extreme resource-poverty prioritise the achievement of material benefits over procedural freedoms (Inglehart, 1971).

Donor and NGO employees suggested that mitigation is achieved as a co-benefit of ECRP development and adaptation activities. However, activities which create mitigation benefits (solar lighting, improved cookstoves) were the least prioritised by local people, especially the most vulnerable households living in the most climate sensitive areas. In areas where water access and availability 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 within project design spaces. 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 which allows donor expectations to shape their activities, both in ECRP and elsewhere (Schmitz et al., 2011; Chahim and Prakash, 2014). Government dependence on external budget support enables donor preferences to permeate national policy positions (Swedlund, 2013; Hayman, 2009). There are also suggestions that local people often suppress their 'true' preferences and confirm project developers' convictions in order to maintain relations and increase their chances of receiving benefits (Leach and Fairhead, 1994; Chambers, 1995).

Invisible power presents a challenge for advancing CCD. Inherent uncertainty and diverse stakeholder priorities means CCD design is an unstructured policy problem in which 'facts' are disputable and simple, 'correct' solutions unattainable (Hurlbert and Gupta 2015). Accordingly, design decisions should be predicated on iterative social learning processes in which diverse stakeholder preferences are considered and critiqued. Social learning can encourage decision-making which is contextually-appropriate and has widespread stakeholder buy-in (Collins and Ison, 2009). The suppression of government, NGO and local preferences threatens to undermine this process, reducing the chances that CCD will: be well-suited to local conditions and constituencies (Leventon et al., 2015); encourage local involvement during

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implementation; and generate life-changing outcomes (Hendrickson and Corbera, 2015; Larrazábal et al., 2012). Overall, suppressed preferences undermine prospects for achieving effective, efficient and just CCD.

5.2 Stakeholder recognition and participatory opportunities

Social learning also requires that stakeholders are recognised and have adequate opportunities to shape knowledge co-production (Hurlbert and Gupta, 2015). However, ECRP project design was 'top-down' and donor-led, with only selective involvement of other stakeholders. Studies of other integrated climate and development interventions report similar design procedures (Sova et al., 2015; Atela et al., 2015; Leach and Scoones, 2013).

Visible, hidden and invisible forms of power create barriers to procedural justice in CCD design. This research reinforces the findings of other studies which show that visible powerlessness curtails the involvement of local people and government representatives within project design (Stringer et al., 2012; Mathur et al., 2014; Gustavsson et al., 2014). NGO funding constraints prevented the majority of target households from taking part in ECRP PVCAs and an absence of guiding policy frameworks restricted government involvement. The literature also points to other instances of where stakeholders' hidden powerlessness mean they are unable to influence design decisions (Benessaiah 2012; Atela et al. 2015).

Invisible power has not been accounted for within the study of CCD projects. Yet research from Malawi shows that it influenced the extent to which stakeholders considered each other worthy of recognition and participatory opportunities. Donors recognised NGOs as technical decision-makers. On account of concerns about misplaced priorities and limited capacity, donors and NGOs recognised government representatives as information providers. Local preferences were considered secondary to professional stakeholders' 'expert' knowledge. Households were only able to rubber-stamp decisions already made. Project processes are therefore at odds with prevailing development discourses which stress that local people should be recognised as "active agents of change" (Sen 2009: xiii). Sova et al. (2015) suggest that climate responses are systemically biased against local interests

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because surrounding discourses perceive indigenous knowledge as unsuitable for dealing with 'uncertainty'. This could undermine local recognition through CCD.

5.3 Lessons for current and future CCD project design

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

I.   **Put local priorities first**

The crowding out of local priorities by supralocal design preferences compromises procedural justice but may also demotivate people from taking part in project implementation. In turn, 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 which address local development priorities can therefore be crucial for encouraging local people to undertake mitigation and adaptation activities which generate longer-term benefits (Reid et al., 2009). Therefore, advancing CCD requires that local priorities become central to project design.

In this context, participatory needs assessments remain an important tool for integrating a range of local priorities within CCD design. However, this is contingent on assessments being well-targeted, robust and reflexive.

II.   **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 (a result of budgetary and resource constraints) mean findings from 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 which avoid tokenism. Ongoing global economic underperformance and associated donor apathy

(Bhattacharyya, 2013) could undermine this. However, private sector funding can help projects find sufficient time and money (Stringer et al., 2014).

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). Peer pressure, domination of powerful voices and self-censorship of controversial views can reduce the expediency of focus groups (Lloyd-Evans, 2006). One-on-one interviews that purposively target vulnerable individuals and households can help ensure that assessments consider diverse local priorities. Harnessing indigenous knowledge can facilitate innovation when local people are able to suggest solutions for overcoming local vulnerabilities (Nyong et al., 2007). Incorporating non-linguistic processes is important when tacit understandings are an important source of local knowledge (Mohan, 2006). Opportunities should be provided to allow local people to feedback on prospective project designs (Alkire 2005).

III. Take steps to reconcile world views

To avoid misrecognition through the incorporation of mitigation in CCD design, efforts should be made to reconcile the world views 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) which can expand local peoples' climate knowledge whilst broadening project employees' understanding of indigenous worldviews and vulnerabilities. Research suggests that local 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).

As discussed, 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 which result in ethical trade-offs between procedural and distributive justice. However, proceeding with activities which create mitigation benefits would seem sensible providing they are adequately designed to also facilitate substantial and locally-valued development and adaptation gains.

IV. Harness knowledge co-production between professional stakeholders

Knowledge co-production between professional stakeholders can strengthen CCD design (Dyer et al., 2014). 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 to overcome vulnerabilities alongside optimal resource allocations within the domestic context (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.

6. Conclusion

Study of projects which 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 world views 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. We suggest four recommendations to help policymakers and practitioners overcome these barriers and facilitate patterns of procedural justice: 1) put local priorities first; 2) make participatory assessments robust and reflexive; 3) take steps to reconcile world views; and 4) harness co-production between professional stakeholders.

These recommendations are unlikely to be sufficient to eliminate procedural injustices unless stakeholders, and especially local people, are considered worthy of recognition and participatory opportunities. Our findings suggest that local priorities are considered secondary to those of other stakeholders. Gaining deeper analytical insight into this invisible power dynamic is a pressing priority for further study. Subsequent research findings and lessons presented here are crucial to facilitate CCD project design which challenges, rather than exacerbates, socio-cultural and political drivers of underdevelopment.

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