Reproducing injustice: Why recognition matters in conservation project evaluation

Kate Massarella\textsuperscript{a,b,c,*}, Susannah M. Sallu\textsuperscript{c}, Jonathan E. Ensor\textsuperscript{d}

\textsuperscript{a} Sociology of Development and Change Group, Wageningen University and Research, P.O. Box 8130, 6700 EW Wageningen, The Netherlands
\textsuperscript{b} Department of Environment and Geography, University of York, York YO10 5NG, UK
\textsuperscript{c} Sustainability Research Institute, School of Earth and Environment, University of Leeds, Leeds LS2 9JT, UK
\textsuperscript{d} Stockholm Environment Institute, Department of Environment and Geography, University of York, York YO10 5NG, UK

A R T I C L E   I N F O

Keywords:
- REDD+
- Critical environmental justice
- Framing
- Political ecology
- Evaluation methodology

A B S T R A C T

Following critiques of the global environmental justice paradigm, a ‘critical’ environmental justice scholarship is emerging. This article contributes to this important field of inquiry by interrogating project evaluation through a critical recognition justice lens that draws on political ecology. We use an embedded case study of the official donor evaluation of a REDD+ pilot project in Tanzania; comparing narrated accounts of the project recipients’ experiences with the official evaluation documents and asking whose ways of knowing, values, and perspectives on governance and justice are recognized and whose are excluded. We find that the report represents a narrow framing of the project experience, based on standard evaluation criteria, the technical framing of the project, and the ways of knowing, values and perspectives of the (inter)national conservation community. The project framings of many local-level project recipients are not recognized in the official evaluation, despite attempts to include villager perspectives and some consideration of justice-related outcomes in the report. Project evaluation is therefore identified as a vehicle for recognition justices and injustices, discursively reproducing the ways of knowing, values and perspectives of certain actors while excluding others. The role of project evaluation in the proliferation of dominant conservation discourse is identified, and the ability for standardized evaluations to deliver meaningful learning is challenged. We therefore call for a reframing of project evaluation and highlight the potential of incorporating critical environmental justice scholarship and pluralistic methodologies.

1. Introduction

Environmental justice (EJ), and particularly what Svarstad and Benjaminsen (2020) call radical EJ, has been established as a core approach for the critical analysis of socio-environmental phenomena, including natural resource governance and conservation interventions (e.g. Dawson et al., 2018; Mabele, 2019). Radical EJ analysis typically focuses on three overlapping dimensions: distributive, participatory and recognition justice (Schlosberg, 2009). In the context of natural resource governance and conservation interventions, distributive justice focuses on the (uneven) distribution of benefits, harms and burdens of intervention (Martin, 2017). Participatory, or procedural, justice is concerned with the extent to which different actors and actor groups have meaningful involvement in decision-making (He and Sikor, 2015; Isakyu et al., 2017). Recognition is concerned with whose identities, values, interests and knowledge are respected and taken into account (Schreckenberg et al., 2016; Sikor et al., 2019).

Two critiques have, however, been levelled at radical EJ scholarship. Firstly, that it focuses too narrowly on patterns of injustice, rather than underlying causes (Svarstad and Benjaminsen, 2020). Secondly that conceptualizations of what is just and unjust are defined through Western knowledge structures, causing further global injustices (Lawhon, 2013; Temper, 2019). Consequently, there are calls for radical EJ to expand and incorporate more critical lenses towards what is termed critical environmental justice (Pellow, 2016). The inclusion of political ecology is central to this agenda in order to re-establish links between patterns of injustice and the broader histories, structures, discourses and processes that drive them (Pellow, 2016; Pulido and De Lara, 2018), and to foreground issues of politics and power (Svarstad and Benjaminsen, 2020).

This paper contributes to the growing field of critical EJ (Alvarez and Coolseal, 2020; Pellow, 2017) by interrogating project evaluation in...
natural resource governance through an analytical lens that combines recognition justice and political ecology. Here the term project evaluation refers to the mechanisms and processes of formal project appraisal. We explore critical environmental justice issues through a case study of the ‘official’ evaluation of a Tanzanian REDD+ (reducing emissions from deforestation and forest degradation and enhancing forest stocks through improved forest management and conservation) pilot project. REDD+ provides an ideal case study through which to examine project evaluations, particularly due to its global scale. The REDD+ mechanism continues to be championed by the international conservation community, despite critical scholarship and civil society groups highlighting its many problems in practice (Asiyanbi and Lund, 2020; Nousiyya, 2017). The global flows of knowledge and funds in REDD+ have also led to widespread injustices (Hoang et al., 2019; Sikor, 2013c). The fact that the Tanzanian REDD+ projects were pilots is also significant, as pilots are used as a means of generating quick and tangible results around a new mechanism, policy or program (Bailey et al., 2019), thus heightening the importance of evaluation. The case of project evaluation is also timely, as it is yet to be studied in detail using an EJ lens, despite delivering ‘evidence’ that supports decision-making, policy and intervention design (Bottrill and Pressey, 2012), and despite evaluations being critiqued for presenting a narrow version of events as the project story (Li, 2016).

When applied to natural resource governance and conservation more broadly, the focus of justice-related inquiry remains on distribution and participation (He and Sikor, 2015; Martin et al., 2016). This is particularly so in relation to REDD+, where the primary focus is on benefit sharing and participation in decision-making (Schoedoe and McDermott, 2014). However, without recognition a crucial piece is missing, as its goal is to seek ‘equality between different ways of knowing the world’, which is not guaranteed through distribution and participation (Martin et al., 2013: 124). Indeed, recognition can be seen as an ‘inherent precondition’ for distributive and participatory justice (Schlosberg, 2007: 519), and is the focus of this study. A critical recognition lens can deepen understanding of the different ways in which those affected by intervention ‘subjectively perceive, evaluate and narrate an issue, such as their perspectives on an environmental intervention’ (Svarstad and Benjamin, 2020: 4). This allows for exploration of whether these perspectives are recognized by powerful actors and whether they are included in, or excluded from, conservation discourses that project evaluations feed into. In turn, a critical recognition justice lens enables interrogation of how knowledge is produced; facilitating better understanding of underlying causes of injustice in conservation and opening up the potential for transformational approaches to justice (Temper, 2019).

The paper proceeds as follows. First we explore critical EJ theory and unpack the use of a critical recognition justice lens, before introducing the theoretical framework that will be used in this paper. We then outline the methodology, followed by analysis of results: comparing the official evaluation report with the narrative accounts of a broad range of project recipients in two villages in the project. We then discuss these findings in relation to recognition justice in project evaluation and conservation discourse and practice more broadly, before making some recommendations. We identify project evaluation as a vehicle for recognition injustices. Project evaluation is both driven by and is a driver of powerful conservation discourses and dominant framings, does not sufficiently recognize the plurality of experiences, discursively reproduces the framings and evaluations of certain actors, and drives further injustices. We challenge dominant and standardized approaches to evaluation, and demonstrate the value of using a critical recognition justice lens that draws on political ecology as a way of identifying underlying causes of justice.

2. Theoretical framework

2.1. Critical environmental justice and the importance of recognition

The roots of EJ scholarship lie in the exploration of the uneven and unjust distribution of environmental benefits and harms between different socio-economic groups, both within individual countries (Bullard, 1990) and on a global scale (Agyeman et al., 2003). Theories and models of EJ are also increasingly being used in relation to global environmental concerns, including energy (Sovacool et al., 2019), climate change (Vaughn, 2017), natural resource governance (Mehta et al., 2014; Sultana, 2018), and conservation interventions (Hoang et al., 2019; Isakyu et al., 2017; Martin, 2017). The language of environmental justice can also increasingly be found in the media (Lakhani, 2019) and in environmental policy and programmes (UNEP, 2018). In the case of conservation, particular attention is given to situations where the resources to be conserved are used, and in some cases governed, by a local population (Blankie and Muldavin, 2014).

Drawing on the work of influential justice theorists including Fraser (1995) and Young (2011), the radical EJ framework emerged. Based on the pillars of distributive, participatory and recognition justice (Schlosberg, 2009), it has been used to analyse a wide range of different environmental issues, including the outcomes of conservation mechanisms and interventions (Sikor, 2013a). However, the radical EJ framework has been criticised for a tendency to focus at a small scale and for not always engaging sufficiently with the underlying political struggle that characterizes environmental governance, nor the global political and economic structures that drive injustices (Pellow, 2017; Svarstad and Benjamin, 2020). It is also argued that notions of justice are often narrowly defined through Western ways of knowing, thus maintaining global power structures and resulting in further injustices (Álvarez and Coolsaet, 2020; Temper, 2019). In conservation, for example, conceptions of ‘just practice’ and ‘desirable outcomes’ of intervention, remain narrowly defined by one particular group of actors (Martin et al., 2016; Sikor et al., 2013). Partly in response to these critiques, additional pillars of justice have also been incorporated, including capabilities (Nussbaum, 2011; Sen, 2009), cosmopolitism (McCauley et al., 2019) and multi-species justice (Brown et al., 2019). However, as distribution, participation and recognition remain the core of EJ inquiry, scholars argue that more focus is needed on expanding these pillars to better ground them in global political struggle over both the environment and environmental knowledge (Lawhon, 2013; Vermeylen, 2019) towards what is being called critical environmental justice (Álvarez and Coolsaet, 2020; Pellow, 2017).

An increased focus on recognition is central to this growing field of critical EJ, with a core concern being how conceptions of recognition can be expanded to include epistemic justice (Valladares and Boelens, 2017; Widenhorn, 2013). This involves ‘making visible and politically relevant ways of knowing that have been marginalized as a result of the imposition of a dominant knowledge system over others’ (Widenhorn, 2013: 380). Epistemic justice is highly relevant in the case of expert practice (such as evaluation), which is inherently shaped by epistemic politics (Vaughn, 2017). We unpack epistemic justice in project evaluation by focusing on two core aspects of critical environmental justice scholarship. The first is an emphasis on the subjective perceptions of environmental intervention, expressed through the ways of knowing, perspectives and narratives of recipient communities (Sikor et al., 2013; Svarstad and Benjamin, 2020). The second involves a consideration of both spatial and temporal scale: how recognition injustices identified in one specific context are connected to, are a product of, and contribute to broader social and political processes and power relations (Pellow, 2017; Svarstad and Benjamin, 2020). By combining these two aspects of critical recognition justice we can begin to unpack broader issues of politics and power in conservation (Sikor, 2013b); uncovering how certain ideas about, and framings of, conservation become reproduced as part of ‘discourse and narratives that are favourable to the dominant...
actors’ (Svarstad and Benjaminsen, 2020: 6). The domination of some individuals and groups and the exclusion of others thus become more visible and, once seen, may be reduced (Isakyu et al., 2017).

2.2. Operationalizing critical recognition justice

As the critical EJ paradigm evolves, questions are being asked about how to operationalize it (Widenhorn, 2013). One of the ways that has been put forward is by incorporating ideas from political ecology (Pulido and De Lara, 2018; Svarstad and Benjaminsen, 2020). The concept of framing used in political ecology is useful for the exploration of critical recognition (including epistemic) justice, and subjective perceptions and patterns of cross-scale injustices. Framing is defined as ‘the particular contextual assumptions, methods, forms of interpretation and values that different groups might bring to a problem, shaping how it is bound and understood’ (Leach et al., 2010: 5). Political ecologists have shown that local people’s framings of environmental issues often differ significantly to actors designing and implementing interventions (e.g. Fairhead and Leach, 2003; Massarella et al., 2018). This difference is shown to be particularly stark in the case of ‘top down’ forest carbon projects like REDD+ (Ongirira and Mangwanya, 2015; Kijazi, 2015). In practice, this involves emphasizing the ‘subjective dimension’ (Alvarez and Cooldsæt, 2020: 61) and narrative methods are highlighted as ‘a way to present voices that are often not heard, nor taken seriously’ (Svarstad and Benjaminsen, 2020: 5). Individual narratives can be analyzed in a way that uncovers different framings of conservation, as well as broader ideas about the environment and development.

Sikor et al. (2013) identify four aspects of recognition justice, which we have adapted as an analytical tool for critically investigating recognition justice in project evaluation (see Table 1). This analytical tool can then be used in collaboration with a political ecology lens to ask broader political questions about discourse and power in conservation by interrogating ‘who and what is actually included, and who and what is ignored and excluded’ from project evaluation (Apthorpe and Gasper, 2014: 6). As such, we can add insights into the critical question of ‘whose knowledge counts?’ in conservation (Escobar, 1998; Sultana, 2019).

### Table 1

| Category                  | Definition (Sikor et al., 2013)                                                                 | Categories adapted as questions for a critical recognition justice analysis of project evaluation |
|---------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Ways of knowing          | Processes of knowledge generation, accumulation and use                                        | How do different actors use their knowledge and past experiences to make sense of the project and their experience of it? |
| Value                     | How people perceive what is desirable and acceptable to them                                 | How do different actors value – or judge - different project elements, processes and outcomes? And how is this influenced by broader values? |
| Perspectives on governance| Ideas about what constitutes legitimate decision-making and management                         | How do different actors frame ‘good’ and legitimate governance in relation to the project (and more broadly)? |
| Notions of justice        | Conceptions of justice that frame intervention (e.g. utilitarian)                             | How do people perceive equity, fairness and justice (distribution, participation and recognition dimensions) in relation to the project? |

adapted from Sikor et al. (2013)

3. Materials and methods

3.1. Case study selection

An embedded case study design was adopted to provide robust, context-specific description that identifies and illustrates issues of concern in relation to a broader phenomenon (Baxter and Jack, 2008; Flyvbjerg, 2006). The overarching case study was the evaluation of the REDD+ pilot phase in Tanzania, which provides insights into piloting and evaluation of conservation projects more broadly. The REDD+ mechanism was instigated by the United Nations Framework Convention on Climate Change (UNFCCC) in 2005. REDD+ was conceived as a global solution to deforestation, one that tackles climate change mitigation, biodiversity loss and human development issues through carbon payment schemes (FCPF, 2015). REDD+ began with a ‘readiness’ phase in which countries in the Global South were encouraged to implement pilot or demonstration projects, and countries in the Global North to provide funding. One of the core objectives of the readiness phase was to generate lessons and evidence via lessons learnt documents, reports, conferences and academic outputs (UNREDD, 2011).

Tanzania was one of the original UNFCCC pilot countries, supported by $80 million of bi-lateral funding from Norway’s Climate and Forest Initiative (NIFCI). Around 40% of the funding was used to implement nine pilot projects (Kajijage and Kafumu, 2016), seven of which were completed. Fig. 1 illustrates the location of the original nine projects and highlights the case study used in this research. These projects were implemented by conservation and development NGOs, designed to test the REDD+ mechanism and generate lessons for policy design and program development both in Tanzania and globally (Burgess et al., 2010). The projects were implemented between 2010 and late 2014. In 2015 the Norwegian Embassy commissioned comprehensive final reviews, which were completed by consultants working for the NIRAS group (see www.niras.com). The reviews resulted in reports, policy briefs, academic papers and formal presentations in Tanzania and Norway (e.g. Blomley et al., 2016; NIRAS, 2015).3

In addition to this, the NGOs produced reports, articles and other outputs documenting their own pilot projects (e.g. Ball and Makala, 2014; TFCG/MJUMITA, 2014). The evaluation of one pilot project was then chosen as an embedded case study. This allows for deep analysis, or ‘thick description’, of one case and enables more robust analysis towards understanding the broader case (Baxter and Jack, 2008; Geertz, 1994). ‘Making REDD+ work for communities and forest conservation in Tanzania’ project (TFCG/MJUMITA, 2014) was implemented with 27 villages across Lindi, Kilosa and Mpwapwa districts. Our research focuses on only the Kilosa portion of the project and we hereafter refer to it as ‘the Kilosa project’. It was selected as it was one of the most well-funded projects, it fully piloted REDD+ including trial carbon payments, and it considered justice-related issues. The project was active between 2009 and December 2014 and was designed and implemented by Tanzania Forest Conservation Group (TFCG) in collaboration with their sister organization MJUMITA (translated as Community Forest Conservation Network of Tanzania): well-established national NGOs with strong links to international actors and networks.

The project purpose was to ‘demonstrate, at local, national and international levels, a pro-poor approach to reducing deforestation and forest degradation by generating equitable financial incentives from the global carbon market for communities’ (MFA, 2009: 7). This approach aligns with REDD+ policies more broadly, which emphasizes equity, safeguarding forest-reliant communities, and having ‘respect for the knowledge and rights of indigenous peoples and members of local communities’ (UNFCCC Decision 1/CP.16). In Tanzania, one of the original four objectives specified that ‘pilot projects will help ensure sufficient diversity in terms of perceptions, experience and involvement during the REDD readiness phase’ (Milledge, 2010: section 3.1). The Kilosa project was designed to test REDD+ and develop models that could be replicated and communicated. It included the establishment of...
new governance institutions, land planning (including gazetting large sections of forest as village land forest reserves), education programs, alternative livelihood projects and trialing of REDD+ payments to test equitable benefit-sharing mechanisms.

3.2. Data collection and analysis

The lead author collected data in 2015 and 2016 as part of an extended period of fieldwork. An interpretivist-constructivist approach was taken to research. This approach recognizes multiple realities and ways of knowing the world, conceptualizes knowledge as co-created and assumes a naturalistic methodology (Denzin and Lincoln, 2011). To achieve depth of study, two villages in Kilosa (K1 and K2) were selected as cases studies. As the villages were not chosen for comparison, adjacent villages sharing geographical similarities were selected. K1 and K2 have a similar population size and central village area housing the village office and a concentration of houses, and then sub-villages that spread from there (some being quite remote). Small-scale, subsistence agriculture is the main livelihood activity in both villages. Neither village had been involved in NGO-led forest conservation projects previously and before the REDD+ projects had not had comprehensive village land management plans. Neither village had been previously set up for participatory forest management (PFM), which is widespread in Tanzania. Both villages received all project elements and were judged to have performed well. However, the villages are governed separately and their unique and complex village dynamics, characteristics and histories meant that they approached and experienced the project very differently. For example, in K1 more farms were situated in what became the REDD+ protected forest reserves (and as such were relocated), and in K2 there had been a long history of mistrust in the village leadership.

Forty narrative interviews were conducted across the two villages. Narrative interviews are non-structured, open interviews, in which the researcher encouraged respondents to narrate their experience of the project in their own words, as opposed to asking pre-determined questions (Riessman, 2008). As narrative interviews produce data that is closer and more sensitive to the lived realities and sense-making of each individual, their use aligned with the aim of critical recognition justice to ‘enable voices that are often not heard’ (Svarstad and Benjaminsen, 2020: 5). Participants were initially chosen via purposive sampling in consultation with key informants in each village; ensuring a gender balance, a mix of socio-economic groups, inclusion of people in remote sub-villages, and those heavily involved and less involved in the project. In line with a reflexive research approach (Sultana, 2007), a small amount of snowball sampling was also used when specific people were suggested as having an interesting story (for example people in K1 involved in ongoing conflict over farm relocations).

A mix of narrative and semi-structured interviews with NGO staff, local government officials, embassy staff and consultants involved in evaluation also enabled exploration of broader framings of the project and its evaluation. Observations of village meetings, and informal conversations also enabled the lead author to ground the narrative interviews. Document analysis was also an important method, focused on the official, Norwegian Embassy-commissioned evaluation report of the Kilosa REDD+ project (NIRAS, 2015a). This report was selected as it represented the official evaluation and was framed as reflecting the lessons learnt from the project. Although the consultants evaluated the districts individually (Kilosa, Lindi and Mpwapwa), the report itself evaluates the project as a whole, bringing learnings from all three districts together. Any sections of the report that talk specifically about Lindi or Mpwapwa are not included in this analysis. Other evaluation documents produced by the embassy-commissioned project consultants, and produced by TFCG/MJUMITA were also used to triangulate findings.

Fig. 1. Map showing sites of nine REDD+ pilot projects in Tanzania. The black line identifies the Kilosa pilot project. Source: WCS Tanzania.
The four critical recognition justice categories outlined in Table 1 were used as an analytical tool to identify content across qualitative data that reflected ways of knowing, values, perspectives on governance, and notions of justice. Each individual interview transcript was analyzed in detail for data on the four analytical categories. This data was then analyzed across interviews to identify and group the most prominent themes. The same analytical tool was then used to identify content in the evaluation report that reflected ways of knowing, values, perspectives on governance and notions of justice. Interviews with the consultants were also analyzed in this way to deepen the analysis. Finally, findings from the K1 and K2 interviews were compared and contrasted with the report to establish patterns of (mis)recognition.

While this study demonstrates the value of embedded case studies, some limitations are identified. First, the study boundaries mean that some actors who may have been impacted by the project were potentially missed out. For example, pastoralists in Kilosa have long been present in the region and have been involved in political struggle (Benjaminsen et al., 2009). Pastoralists were not included in the sample because they were not present in and around the two villages during the research, nor mentioned by key informants. This could have been due to seasonality and/or the fact that keeping and grazing of livestock was prohibited in these particular villages. Nonetheless, this demonstrates the challenges of framing in any kind of research, which includes some groups and not others (Fraser, 2009). Secondly, case study research has been challenged for not being generalizable (Flyvbjerg, 2006). Similarly, EJ is critiqued for being too context-specific (Pellow, 2017). But by grounding the study in political ecology, using the aforementioned embedded case study approach to span scales (Baxter and Jack, 2008), and using a case study that reflects standardized approach to evaluation (see Section 4.1), we are able to reflect dynamics and issues outside of the case study’s physical and temporal boundaries. Lastly, through continued reflection on positionality and power relations during data collection and analysis (Sultana, 2007), we acknowledge that the villagers’ narratives have been interpreted through the lens of academic practice in a Western university and so can never be fully representative of local experience.

4. Analysis of results

4.1. Ways of knowing

In line with the terms of reference agreed with the Royal Norwegian Embassy (RNE), the official evaluators (NIRAS) made sense of the project by following the ‘...standard OECD/DAC evaluation criteria’ (NIRAS, 2015a: 3). This evaluation framework was established by the Organization for Economic Cooperation and Development’s Development Assistance Committee in 1991 (OECD/DAC, 1991). The framework was designed around the five criteria of relevance, effectiveness, efficiency, impact and sustainability (ibid.), although the framework has – in 2019 - been updated to include a sixth criterion, as well as new definitions of the original criteria and more extensive guidelines for their use (OECD, 2019). The OECD/DAC framework is widely used by donors and practitioners to evaluate conservation and development projects (Chianca, 2008), and as such can be seen as the standardized frame through which projects are interpreted or ‘known’. The consultants used the original five OECD/DAC criteria to measure whether the ‘four cross-cutting result areas’ of ‘readiness, policy testing, REDD+ results and broad stakeholder involvement’ had been delivered. The cross-cutting results areas were objectives set by the RNE at the start of the pilot projects. The consultants also reviewed ‘project outcomes which were also defined in the terms of reference to be key evaluation considerations’ (NIRAS, 2015a: 3). These project outcomes were devised by the NGO at the start of the project and agreed by the RNE.

The evaluation process (of Kilosa and the other Tanzanian REDD+ pilot projects) took around six months and was completed by a team of experienced consultants – both Tanzanian nationals and internationals with a history of working in Tanzanian forest conservation. They reviewed project documents and interviewed national actors and NGO representatives working on the individual projects. The consultants also went to the different project sites and visited villages - in the case of Kilosa three villages for between a half day and a day each - to uncover people’s ‘perception and knowledge of the project to date’ (NIRAS, 2015a: 4). This primarily involved meetings with the village leaders, members of the village committees, and people involved in the alternative livelihood projects, plus short village walks to gather observations and have conversations with poorer households. Outputs included individual project evaluation reports, an overarching lessons learnt document (NIRAS, 2015b), policy briefs and two day-long results presentations (in Tanzania and Norway).

The evaluation report on the Kilosa project is framed using the language of international actors and proponents of REDD+. The REDD+ mechanism is very technical and emphasizes carbon emissions, markets and measurements. Industry-standard terms such as ‘PD’ (project design document), ‘VCS’ (Verified Carbon Standards), ‘EPIC’ (Free Prior Informed Consent) and ‘capacity building’ are used. The framing was also influenced by the intended audience, specified in the terms of reference as ‘international and national conservation practitioners’. The report framing was also influenced by the status of the projects as ‘pilots’, which are designed to provide practitioners and policy-makers with:

‘[MKUHUMI] saw our level of development was a bit poor, I think they came to improve our situation a bit’ (Woman, 20s, non-leader/non-committee, K1 village).

As this quote demonstrates, MKUHUMI was also used as a signifier for local change, including social development (especially in relation to the alternative livelihood projects) and changes in forest management. Unlike the project evaluation, the project was not framed – by any villagers – as a pilot or test project. Rather, villagers reflected on the wide-reaching impacts that MKUHUMI had – some framed very positively and some negatively, depending on the experiences of the individuals (see Massarella et al., 2018 for more on the impacts of the project). Such changes were not captured in the evaluation report, which used pre-determined categories of ‘changes in forest condition and biodiversity’, ‘improvements in livelihoods’ and ‘improvements in governance’ (NIRAS, 2015a: 3) to judge impact.

Villagers rarely spoke about the carbon elements of the project as central, although the way they were discussed varied between actor groups. Those in leadership positions spoke more about the MKUHUMI mechanism, its measurement and related international carbon standards. As this group of villagers were those with whom the consultants spoke in their field visits, this is reflected in the report, which shows a good level of understanding of REDD+. However, those in the village less involved in the project made sense of carbon using their own experiences and frames of reference (if they spoke about it at all):

“They said that if we would’ve taken good care of the forest they would be coming to harvest carbon air. That meant they would have taken it, gone...
to sell it and in return they would have sent us some money later’ (Man, 30s, leader/former committee member, K2).

The villagers received one round of trial carbon payments, designed to test equitable benefit-sharing mechanisms. However no further payments were received, leaving some people disappointed, particularly as they felt they had conserved the forest well. This plurality of project experience is not recognized in the evaluation reports, and the project framings of those less involved in the project are not visible.

4.2. Values and valuing the project

The evaluation report presents some of the villager perspectives, primarily in relation to how the trial payments and alternative livelihood projects were valued. However, the villagers are largely framed as one homogenous group:

‘The review team was able to verify the very high level of popularity of REDD+ payments across all villages visited’ (NIRAS, 2015a: 17).

In reality, a wide range of project valuations could be found between different actors and actor groups in the villages, with people in K1 identifying that:

‘…there are two groups. There are those who agree and those who disagree… Half see the benefit of MKUHUMI and half think there’s nothing’ (Woman, 50s, committee member/former leader, K1).

The evaluation report does not explore these polarised voices, with negative project evaluations largely not recognized. Nor does it interrogate why many of those in leadership valued the project and its different elements. In fact, the report separates assessment of ‘forest condition and biodiversity’ and ‘livelihoods’ (NIRAS, 2015a), while many of those who saw the project as highly valuable did so because of the perceived positive impact that a healthier forest can have on livelihoods and wellbeing. Forest condition and livelihoods are inherently linked. Conversely, many of those who valued the project negatively did so because it directly impacted their livelihoods by restricting where people could cultivate. This was most apparent in K1 where many farms were relocated away from what became the village forests, managed as protected areas.

The livelihood projects introduced by the NGO included conservation agriculture ‘farm schools’ (known locally as ‘shamba darasa’), village saving and loan associations (VSLAs) and bee-keeping. Within the evaluation report, these are referred to as non-carbon benefits (NCB). The evaluation report recognises the ‘strong support for most of the project activities’ (NIRAS, 2015a: 5) among villagers. However, the evaluation report focuses its NCB analysis on shamba darasa due to its perceived direct influence on conservation. The report does not consider VSLAs in any depth, as ‘it is unclear whether this activity contributed to reducing deforestation’ (NIRAS, 2015a: 18). This reflects the broader values that frame the report: i.e. that forest conservation is the most highly valued outcome. However, among villagers, the VSLAs were highly valued, and for very different reasons. They have enabled people to improve their personal situations, which in some cases has been life changing – and they continued to grow post-project:

‘There are some [project activities] that are successful, for example VSLAs. Now almost half or three-quarters of the villagers are investing their money. They don’t take it to the bank, they put it in the VSLAs. That education, I see that almost half of the entire village is practising it’ (Woman, 60s, village leader/committee member, K1).

This quote also demonstrates the high value given to the education in the projects, with VSLAs, shamba darasa and other elements being framed as education. Education is highly valued more broadly; seen to ‘bring hope’ (Man, 20s, non-leader/non-committee, K1). It was also telling that the education elements of the project were valued even among some actors whose farms (or family members’ farms) had been relocated out of the village land forest reserves. Those who felt they had been left out of the education element of the project had very negative feelings about this and about the wider project, again demonstrating the high value put on learning at the local level. The NGO also built an office in each participating village and started building dispensaries (although these remained incomplete over a year after the project was finished). The offices and dispensaries were also often highlighted as a positive project outcome, even by those who perceived that they had been negatively affected by the project. However, the high value given to education and the building of the office is not recognized in the evaluation report, as the report is framed around elements that can be directly linked to forest conservation and carbon sequestration: elements more highly valued by those designing and evaluating the projects, and the (inter)national forest conservation community more broadly.

4.3. Perspectives on governance

The divide identified between villagers was largely framed around the changes to forest governance that had been introduced as part of REDD+, particularly in relation to the protected forest reserves. This was most noticeable in village K1, where conflict over farm relocations from the reserves continued after the completion of the pilot project. The following quotes illustrate the two opposing views:

‘Now, in the protected forest, there is no entry. And the bylaws have been prepared. And when someone violates the laws, then he or she is fined 50,000 shillings or taken to court. And that is why you can see that the condition of the forest is better… There are a few who are still polluting the conservation area…’ (Man, 60s, village leader, K1).

‘MKUHUMI doesn’t want us to work in our farms in… the slopes, it stops us farming. It tells you if you farm in the slopes you cause carbon air so you need to move to the valley. Now in the valley is where there are very small farms. That is why the citizens don’t want MKUHUMI’ (Woman, 20s, non-leader/non-committee, K1).

The first quote broadly reflects the views of the village leaders and committee members, as well as some other villagers, who believe that the only way to conserve the forest (and secure carbon benefits) is via strict protection. Anyone in K1 still farming in the VLFR and refusing to move were framed as polluters whose actions cause harm to the rest of the village. The second quote reflects an alternative framing; that strict protection causes significant harm to the individual farmers affected, both emotionally and in relation to livelihoods, particularly as the farms close to the forest can be more productive. This view was most prevalent among those in K1 affected by the relocations, as well as others who framed the gazetting of forest reserves as unfair and unnecessary. Alternative suggestions for forest governance were given, with some villagers arguing that those farming in the forest reserves could improve conservation due to their ability to see and report illegal activities. Restricting expansion of existing farms, and sustainable harvesting of trees in line with a previous national kata mti, panda miti (cut a tree, plant trees) campaign were also suggested as alternatives to strict protection.

In the evaluation report, the establishment of forest reserves is framed as good governance, which is in line with international REDD+ policy and views expressed by the NGO actors (at the national and local level), consultants and other national and international actors. Value judgements on land planning and by-laws, agricultural expansion and the need for reserves can be identified:

‘…villagers recognise the importance of a land use plan for regulating appropriate land use. In some villages there are, however, examples of continued expansion of agriculture land and cultivation within [village land forest reserves]. It has been challenging for some village natural
resource committees and village governments to enforce the bylaws and collect respective fines’ (NIRAS, 2015a: 11).

This quote shows how the evaluation report framing recognizes and therefore validates some perspectives. Alternative ideas about good governance are excluded through the narrow framing of the report and embedded assumptions that forest reserves are the best solution. Many of the villagers who supported strict protection were those who most benefitted from the project, such as leaders and committee members, while those with alternative perspectives were less involved in the project.

Some villagers voiced a preference for NGO-led forest governance to continue (as opposed to local government), particularly in village K2 where mistrust of the village government was more frequently expressed. This reflected a concern for the forest if MKUHUMI (in this case referring to the NGO) were to leave, and was identified even among those who had not felt a direct benefit from the project:

‘Me personally, I would ask MKUHUMI to be close to the villagers, so that they can work together, for the good of the forest... because, if it’s handed back the environment will deteriorate’ (Woman, 20s, non-leader/non-committee, K2).

As one of the five OECD/DAC indicators, the sustainability of different project elements is considered within the evaluation report, but framed largely in relation to carbon sales rather than more general forest management. Broader concerns about forest health are expressed, along with the suggestion that sustainable harvesting could have provided a more sustainable solution. This concern for sustainability is mirrored at the village level, however, the focus was not on the sustainability of carbon sales. Rather, there was widespread concern that the forest would not be as easy to manage once the NGO and the project resources left and the villagers had to continue with very few resources. These bigger questions about long-term forest management that were raised by villagers were not recognized in the report; framed out through the focus on the REDD+ mechanism.

4.4. Notions of justice

Although not explicitly labelled as such, both the pilot project itself and the subsequent project evaluation considered issues of justice. The project was designed to be ‘pro-poor’, with a focus on equitable distribution and participation between/of villagers (TFCG/MUUMITA, 2014).

In practice, this involved development of an equitable benefit-sharing mechanism for carbon payments – payments that were allocated to each village by the NGO based on factors including forest cover and potential carbon sequestration. Decisions made about where the payments should go were deliberated at the village meetings and trial payments were distributed based on this agreement. In both villages this included small payments to each individual. In K1 it was agreed that some of the money would go into a pot to be used for the benefit of the whole community. In K2 the villagers chose to have individual payments distributed and whether the villagers felt left out, or not recognised by the project, can also be identified:

‘We see guests coming there at the office. They meet with members of the council, they discuss what they want. Therefore us small guys we only get bits of information on conserving the forests but we haven’t been given enough education’ (Man, 30s, non-leader/non-committee, K2).

People in both K1 and K2 argued that although they had been present at village discussions at the start of the project, they did not feel as though they could voice objections. This is in contrast to village leaders and committee members, who framed decisions as being jointly taken at village meetings and expressed a strong sense of collective project ownership:

‘This work is ours – firstly the forest is ours, as villagers’ (Woman, 60s, leadercommittee member, K1).

Notions of justice were a product of complex village history and context, which existed before the project came and continued after it was (officially) completed. For example, in K2, mistrust of the village leadership meant that there was ongoing suspicion about what was happening with carbon payments (which some villagers suspected were still being received) and fines taken from illegal activity in the forest reserves:

‘Today people embezzle money, nobody does anything. They just tell you we got so and so from these projects but there’s nothing to show. They just fatten only themselves’ (Man, 60s, non-leader/non-committee, K2).

This analysis demonstrates that notions of justice were complex, heterogeneous and reflected the values and ways of knowing of villagers. These nuanced ideas about project (in)justices were not recognized in the evaluation, which focused on pre-determined issues.

5. Discussion and conclusions

This article contributes to the growing field of critical EJ inquiry by combining political ecology and radical EJ to explore recognition (in)justice in project evaluation, focusing on epistemic justice and emphasizing subjective evaluations among project recipients and the broader social and political implications of recognition injustices in project evaluation. Using an analytical framework adapted from the work of Sikor et al. (2013), we have shown that the ways of knowing, values, perspectives on governance and notions of justice of certain actors are recognized through the evaluation process, while others are excluded. From this analysis, we are able to make two important contributions.
First, we contribute to work that identifies elements of conservation policy and practice that can lead to (in)justices (e.g. Martin, 2017; Sikor, 2013a) by conceptualizing project evaluations as vehicles for (in)justice. This contrasts with the framing of project evaluations as objective reflections on project successes and failures (Curzon and Kontoleon, 2016). Second, by drawing on ideas of knowledge production, discourse and framing in political ecology (e.g. Escobar, 2011; Leach and Scoones, 2015; Svarstad and Benjaminsen, 2017) and the concept of epistemic justice from critical EJ (Temper, 2019; Valladares and Boelens, 2017; Widenhorn, 2013), we identify justice implications of misrecognition in evaluation for conservation more broadly. We now discuss the key insights related to these contributions before reflecting on the implications of these findings for conservation policy and practice.

In relation to our first contribution, we have shown that the narrow framing of evaluation can lead to recognition injustices. The Kilosa project was designed and implemented in alignment with the language and objectives of international REDD+ financing schemes and evaluated using those same ways of knowing, values and perspectives. This included highly technical concepts and complex methodologies, the framing of carbon as the central concern (Leach and Scoones, 2015) and the framing of forest conservation as the ultimate goal (Carrier and West, 2009). Using the standard OECD/DAC framework also meant that the project’s relevance, effectiveness, efficiency, impact and sustainability were measured based on technical, international REDD+ framing. Village perspectives were considered in the report, but only through this lens, which simplified and excluded much of the messiness and complexity of the project experience (Myers et al., 2018). In addition, by interviewing only a small selection of people in each village and focusing on village leaders, the plurality of village project experiences were not reflected (Leach et al., 2010; Martin, 2017). The nuanced ways in which villagers made sense of and valued the project, including positive reflections on elements like VSLAs and education, were thus made invisible by the ‘dominant knowledge system’ reflected in the report (Widenhorn, 2013: 380).

Through use of the standardized OECD/DAC criteria and the distributive and participatory justice elements of the project design, notions of justice were also narrowly framed in the evaluation. These notions of justice are ones that have been the main focus among researchers and global REDD+ decision-makers such as NGOs, UN agencies and states (see Brown and MacLellan, 2020). However, this framing of justice differs significantly from the justice issues that most concerned villagers involved in the Kilosa project. For them, justice issues were highly contextual, linked to specific village histories and dynamics. In K1 for example, much of the focus was on the relocation of people from their farms, whereas in K2 more emphasis was on the village leadership not sharing the project benefits. Although recognition was nodded to in the original national-level REDD+ plans through the objective to ‘ensure sufficient diversity in terms of perceptions, experience and involvement’ (Milledge, 2010: section 3.1), it was not considered in detail in the project evaluation. This demonstrates the significance of considering recognition justice – both as an important issue in itself and as a precondition for addressing distributive and procedural justice (Fraser, 2009; Schlosberg, 2007).

Our analysis shows that project evaluations also have the potential to be vehicles for justice, by conceptualizing justice-related issues as a central concern. The Kilosa REDD+ pilot project was designed to be pro-poor and so incorporated a number of justice-related elements, including the distribution of trial payments and participation in decision-making. Many women and poorer households were involved in the project (which could be why villagers didn’t identify either as core issues). So the fact that the evaluation followed project objectives meant such issues were evaluated and critiqued. For example, the extent to which the project could claim to be pro-poor, and the over-reliance on carbon payments for project sustainability were questioned. We thus agree with Sikor (2013b) that payment for ecosystem services interventions lead to both justice and injustices. However, as the justice outcomes were framed within dominant knowledge systems and not subjectively predetermined by project recipients, a critical recognition lens focusing on epistemic justice that is used in this paper’s analysis shows that significant injustices remained (Alvarez and Cool, 2020).

This leads to our second contribution in which we argue that standardized project evaluations that do not prioritize project recipient perspectives exacerbate ‘discourses and narratives that are favourable to the dominant actors’ (Svarstad and Benjaminsen, 2020: 6). They do this by discursively reproducing the ways of knowing, values and perspectives of the international conservation community, while excluding and thereby devaluing those of project recipients; particularly those who had negative project experiences. Project evaluations present the official project story that is used for future decision-making, policy and intervention design (Bottrill and Pressey, 2012) and so this discursive reproduction further establishes dominant ideas about, for example, what ‘good’ intervention looks like (Martin et al., 2016), the relationship between nature and society (Escobar, 1998), and received wisdom about drivers of environmental destruction (Fairhead and Leach, 2003). Alternative experiences, perspectives and realities become further excluded from discussions, exacerbating recognition injustices. Expert knowledge becomes more dominant (Sheba and Mustalahlil, 2015) and the gap between policy discourse and the realities of intervention become more pronounced (Moose, 2004).

As well as the epistemic injustices caused by this process, it also has negative implications for conservation policy-makers and practitioners (in Tanzania and beyond), who want to bring about transformational change through mechanisms such as REDD+. When alternative perspectives are framed out of the evaluation process, the full story of the project is not told. New insights into, for example, forest governance approaches or ways in which people make sense of mechanisms like REDD+ are thus lost. As in the case of Kilosa, unintended consequences of project implementation are also framed out of evaluation (Ferguson, 1990). As such, adjustments to future interventions and mechanisms are likely to be affirmative (making minimal corrections) as opposed to transformative (questioning the underlying framings and assumptions) (Fraser, 2009; Temper, 2019).

Our research findings thus point to a need to think about evaluation differently; both in relation to how more voices can be recognized in the process, and how evaluations can deliver more meaningful findings. We argue that this first requires honest conversations about the primary motivation for evaluation: is there a genuine desire to learn from the project experience and to uncover the many impacts and implications? Or are they just being used to demonstrate success (Svarstad and Benjaminsen, 2017)? A reframing of the evaluation process itself would then be required; shifting the focus from upward accountability to the donors to downward accountability to the project recipients and other local stakeholders (Di Gregorio et al., 2020). It would also require framing projects as dynamic objects that intersect with the complex histories and contexts of people and ecosystems, and that influence and are influenced by broader social and political processes, rather than framing them as isolated entities contained in time and space (Aristotle and Massarella, 2020). Practically, such a reframing would require more extensive investigation of subjective evaluations of project experience by spending more time with recipient communities than in the case of REDD+ pilot project evaluation in Tanzania. One objective would be to uncover ‘hidden transcripts’ of marginalized villagers’ project experiences (Scott, 1990), such as the people in K1 who were fighting relocation of their farms. This would require the gathering of evaluations that are grounded in the lived realities of project recipients, and would help to reduce recognition injustices and increase the possibility for uncovering alternative – and potentially transformative – ways of understanding intervention.

Declaration of Competing Interest

The authors declare that they have no known competing financial
interests or personal relationships that could have appeared to influence the work reported in this paper.

Acknowledgements

This work was funded by the Economic and Social Research Council (ESRC) via the White Rose Doctoral Training College and the University of York and University of Leeds, as part of the lead author’s PhD research. The research was done with the approval and support of the Tanzanian Commission for Science and Technology (COSTECH). Thank you to Robert Marchant for his thesis supervision and support, and WWF-Tanzania for their support in the early stages of the project. Thank you to all of the research participants for their time and their willingness to be included in this research, with a special thanks extended to the communities in Kilosa, and to the village, ward, district and regional government representatives for granting full access. Thank you also to everyone at TFCG/MUUMITA at national and district levels for allowing their pilot project to be used as a case study, and for giving their time and full cooperation. And finally a huge thank you to Rose Julius Mwankaja and Isack Asfao for research assistance, support and friendship.

References

Aggeman, J., Bullard, R.D., Evans, B., 2003. Just sustainability: Development in an unequal world. MIT press.

Alvarez, L., Cooliet, B., 2020. Decolonizing environmental justice studies: A Latin American perspective. Capitalism Nature Socialism 31 (2), 50-69.

Apthorpe, R., Gasper, D., 2014. Arguing Development Policy: Frames and Discourses.

Asyainbi, A., Massarella, K., 2020. Information is what you expect, models are what you get: REDD+ and models in conservation and development. Journal of Political Ecology 27 (1), https://doi.org/10.2458/v27i1.23540.

Bailly, D. Hodgson K. Checkland D. Hodgson M. Fred S. Bailey P. Hall The

Ball, S. and J. Makala (2014). Making REDD+ work for communities and forests: three shared lessons for project designers. In IIEF ed. Gatekeeper. London, IIEF.

Baxter, P., Jack, S., 2008. Qualitative case study methodology: Study design and implementation for novice researchers. Qualitative Rep. 13 (4), 544-559.

Benjamin, T.A., Maganga, F.P., Abdallah, J.M., 2009. The Kilosa Killings: Political and models in conservation and development. Journal of Political Ecology 27 (1), https://doi.org/10.2458/v27i1.23540.

Bailly, D. Hodgson K. Checkland D. Hodgson M. Fred S. Bailey P. Hall The

Brown, K.M., Flemsæter, F., R

Denzin, N.K., Lincoln, Y.S., 2011. The Sage handbook of qualitative research. Sage.

Dinizgir, V., Manganya, L., 2015. Struggles over carbon in the Zambesi Valley: the case of Kariba REDD in Hurungwe, Zimbabwe. Carbon conflicts and forest landscapes in Africa. Routledge 162.

Esopo, A. Esopo Whose Knowledge, Whose nature? Biodiversity, Conservation, and the Political Ecology of Social Movements JPE 51 3 10.2458/jpe.v51i3.21397 https://journals.uair.arizona.edu/index.php/JPE/issue/view/1460

Esopo, A. Esopo Whose Knowledge, Whose nature? Biodiversity, Conservation, and the Political Ecology of Social Movements JPE 51 3 10.2458/jpe.v51i3.21397 https://journals.uair.arizona.edu/index.php/JPE/issue/view/1460

Flyvbjerg, B., 2006. Five Misunderstandings About Case-Study Research. Qualitative Inquiry 12 (2), 219-245.

Fraser, N., 1995. From redistribution to recognition? Dilemmas of justice in a post-socialist age. New left review 60 (9), 9-52.

Fraser, N., 2009. Scales of justice: Reimagining political space in a globalizing world. Columbia University Press.

Geertz Thic description: Toward an interpretive theory of culture. M. MARTIN and I. C. MCINTYRE, Readings in the philosophy of social science 1994 MA and London, MIT press Cambridge 213 231.

He, J., Sikor, T., 2015. Notions of justice in payments for ecosystem services: Insights from China’s sloping land conversion program in Yunnan Province. Land Use Policy 43, 207-216.

Hoang, C., Satyal, P., Corbera, E., 2019. ‘This is my garden’: Justice claims and struggles over forests in Vietnam’s REDD+. Clim. Policy 19 (sup1), S2-S35.

Iyayu, U., Achin, A.A., Aiyani, A.P., 2017. Framing justice in REDD+ governance: Centripetal transparency, equity and legitimacy in roadsin implementation in Western Africa. Environ. Conserv. 44 (3), 212-220.

Kajige, E. and G. Kafumvo (2016). Tanzania: Mapping REDD+ Finance Flows 2009–2014 [online]. Tanzania: Forest Trends. Available at: http://www.forest-trends.org/documents/PDFs/5090.pdf Accessed January 11 2017.

Kijazi, M., 2015. Climate emergency, carbon capture, and coercive conservation on Mt. Kilimanjaro. In: Leach, M., Soones, I. (Eds.), Carbon Conflicts and Forest Landscapes in Africa. Routledge, Oxon, UK and New York, pp. 58-78.

Kghan, N., 2019. Racism dictates who gets dumped on: how environmental injustice divides the world. London, UK, Guardian News & Media Limited, The Guardian UK.

Lawson Situated, Networked Environmentalisms: A Case for Environmental Theory from the South: Situated, Networked Environmentalisms 7 2 2013 128 138.

Leach, M. Soones, I. 2015. Carbon conflicts and forest landscapes in Africa. Routledge.

Leach, M., Stirling, A.C., Soones, I., 2010. Dynamic sustainabilities: technology, environment. Routledge, social justice.

Li, T.M., 2016. Governing rural Indonesia: Convergence on the project system. Crit. Policy Stud. 10 (1), 79-94.

M.B. Mabele In pursuit of multidimensional justice: Lessons from a charcoal ‘greening’ project in Tanzania Environment and Planning B: Nature and Space 2019 45 6 746 764.

Martin, A., 2017. Just conservation: Biodiversity, wellbeing and sustainability. Routledge.

Martin, A., Cooliet, B., Corbera, E., Dawson, N.M., Frner, J.A., Lehmann, I., Rodrigues, I., 2016. Justice and conservation: The need to incorporate recognition. Biol. Conserv. 197, 254-261.

Martin, A., McGuie, S., Sullivan, S., 2013. Global environmental justice and biodiversity conservation: Global environmental justice and biodiversity conservation. Geograph. J. 179 (2), 122-131.

Massarella, K., Sallu, S.M., Enor, J.E., Marchant, R., 2018. REDD+. hype, hope and disappointment: The dynamics of expectations in conservation and development pilot projects. World Dev. 109, 375-385.

McNeely, D., Ramasar, V., Heffron, R.J., Sovacool, B.K., Mebratu, D., Mundaca, L., 2014. Status of NGO REDD project development and management in West Africa. Geograph. J. 179 (2), 122-131.

McNeely, D., Ramasar, V., Heffron, R.J., Sovacool, B.K., Mebratu, D., Mundaca, L., 2014. Status of NGO REDD project development and management in West Africa. Geograph. J. 179 (2), 122-131.

MFA (2009). Contract between the Norwegian Ministry of Foreign Affairs (MFA) and the Tanzania Forest Conservation Group regarding REDD and the Carbon Market work for Communities and Forest Conservation in Tanzania. Dar es Salaam, Royal Norwegian Embassy in Dar es Salaam.

Milledge, S. (2010). Status of NGO REDD project development and management considerations. Note to file circulated March 8th 2010. In D. e. S. Royal Norwegian Embassy ed. Dar es salaam, Tanzania.

Moxce, D. 2004. Is good policy implementation? refections on the ethnography of aid policy and practice. Development Change 35 (4), 639-671.

Myers, R., Larson, A.M., Ravikumar, A., Bowles, L.F., Yang, A., Trench, T., 2018.AESism of forest governance: doe political technologies suppress politics in REDD+ and conservation projects. Global Change. Environ. 30, 314-324.

NIRAS, 2015a. Final review of the project: Making REDD+ work for communities and forest conservation in Tanzania. Implemented by TFCG and Mould, 921.

NIRAS, 2015b. Final review of the project: Making REDD+ work for communities and forest conservation in Tanzania. Implemented by TFCG and Mould, 921.

NIRAS, 2015b. Final review of the project: Making REDD+ work for communities and forest conservation in Tanzania. Implemented by TFCG and Mould, 921.

NIRAS, 2015b. Final review of the project: Making REDD+ work for communities and forest conservation in Tanzania. Implemented by TFCG and Mould, 921.
