

Climate Policy



ISSN: (Print) (Online) Journal homepage: https://www.tandfonline.com/loi/tcpo20

Transformational adaptation and country ownership: competing priorities in international adaptation finance

Laura Kuhl & Jamie Shinn

To cite this article: Laura Kuhl & Jamie Shinn (2022): Transformational adaptation and country ownership: competing priorities in international adaptation finance, Climate Policy, DOI: 10.1080/14693062.2022.2104791

To link to this article: <u>https://doi.org/10.1080/14693062.2022.2104791</u>

		+	
--	--	---	--

View supplementary material 🖸



Published online: 29 Jul 2022.

_	
Γ	
L	0
-	

Submit your article to this journal 🗹



View related articles



View Crossmark data 🗹

RESEARCH ARTICLE



Transformational adaptation and country ownership: competing priorities in international adaptation finance

Laura Kuhl ^D^a and Jamie Shinn ^D^b

^aSchool of Public Policy & Urban Affairs & International Affairs Program, Northeastern University, Boston, MA, USA; ^bDepartment of Geology and Geography, West Virginia University, Morgantown, WV, USA

ABSTRACT

International climate finance is an integral part of the global climate policy regime. Because available adaptation finance is significantly below identified needs of developing countries, competition for scarce resources incentivises countries to design projects to align with funding priorities. One of the areas where this dynamic is particularly relevant is regarding transformational change. Transformational adaptation has risen on the climate policy agenda in recognition of the inadequacy of business-as-usual approaches, and the growing urgency of climate change. It is often characterized based on: (i) the intensity or quality of the change (depth); (ii) the distribution of change (breadth) and (iii) the timeframe through which a change occurs (speed). This study analyses how transformational adaptation is articulated in direct access proposals to the Green Climate Fund to assess compatibility between how transformation is conceptualized and the fund's priority of country ownership. Our analysis reveals significant framing of transformation in terms of scalability and replicability of projects, resulting in an approach to transformational adaptation that emphasizes scalable techno-managerial solutions that extend beyond the project site over social and behavioural change at the local level. We argue that without greater attention to inclusive policies that centre on the most vulnerable, climate finance risks becoming another top-down development strategy that prioritizes adaptation strategies that are easily scalable rather than those that address local needs.

Key policy insights:

- Transformational change has risen up the policy agenda, shaping the design of adaptation projects financed by the GCF.
- Direct access, a mechanism to enhance country ownership and ensure local priorities are represented in climate finance, may be insufficient to mitigate the tensions between the priorities of climate funds and local needs.
- Project proposals emphasize scalability and replicability in their conceptualisation of transformation.
- By privileging those aspects of transformational adaptation that can be easily scaled-up or replicated, GCF proposals frame transformation in terms of breadth and speed, rather than depth, resulting in a stronger emphasis on scalable techno-managerial solutions over social and behavioural change.

1. Introduction

International climate finance is an essential component of adaptation policy for developing countries.¹ Because available adaptation finance is significantly below identified needs (Buchner et al., 2019; Global Commission on

ARTICLE HISTORY

Received 17 June 2021 Accepted 14 July 2022

KEYWORDS

Direct access; transformational adaptation; climate finance; Green Climate Fund; scalability; country ownership

CONTACT Laura Kuhl 🖾 I.kuhl@northeastern.edu 🖃 School of Public Policy & Urban Affairs & International Affairs Program, Northeastern University, 360 Huntington Ave, Boston, MA 02115, USA

Supplemental data for this article can be accessed online at https://doi.org/10.1080/14693062.2022.2104791.
The term 'adaptation policy' refers to the diverse strategies that institutions, particularly government institutions, use to address the impacts of climate change and includes a mix of policies and measures (Mimura et al., 2014).

Adaptation, 2019; UNEP, 2020), competition for scarce resources incentivises countries to design adaptation projects to align with the priorities of international funds even when these come into tension with country-specific needs (Kuhl, 2021; Pickering et al., 2017). The power dynamics embedded in this funding structure have the potential to create an international adaptation regime that overlooks the needs of those most vulner-able to climate change (Bertilsson & Thörn, 2020; Eriksen et al., 2021; Winkler & Dubash, 2016).

One of the areas where tensions are particularly likely to emerge is between priorities for transformational change for donors and recipient countries. Transformational adaptation has risen on the international agenda in recognition of the inadequacy of business-as-usual approaches to adaptation, and the growing urgency of climate change (Fedele et al., 2019; IPCC, 2022). Transformational adaptation is often characterized based on three dimensions: (i) the intensity or quality of the change (depth of change); (ii) the distribution of change (breadth of change) and (iii) the timeframe through which a change occurs (speed of change) (Fazey et al., 2018). Given the increasing emphasis on transformation in the international agenda, understanding what characteristics of transformation are prioritized in internationally-financed adaptation projects is critical, as goals for transformational change can be different (and contradictory) across spatial, temporal and social scales (Conevska et al., 2020; Cumming et al., 2017; Fonta et al., 2018; Frazier et al., 2013).

This paper analyses how transformational adaptation is articulated in project proposals approved by the Green Climate Fund (GCF). The GCF was launched in 2010 as a primary channel for international public climate finance (GCF, 2020), and has grown to be an influential player in adaptation finance. We selected the GCF as the focus for analysis because of its prominent role in the climate finance landscape and its emphasis on transformational adaptation. We seek to answer the research question: Does the prioritisation of transformational adaptation, as conceptualized by the GCF investment criteria and interpreted by applicants, privilege adaptation strategies that are easily scalable and replicable at the expense of adaptation strategies that focus on deep structural or behavioural change? This question is motivated by the concern that adaptation projects funded by the GCF may be prioritising conceptions of transformation that emphasize breadth and speed over depth. To address this question, we conducted a two-step quantitative and qualitative narrative analysis of approved adaptation and cross-cutting (containing both mitigation and adaptation objectives) GCF proposals.² Analysis focused on the proposals submitted by national direct access entities because, theoretically, these projects are most likely to reflect visions of transformational adaptation that are attuned to needs at local scales and include attention to deep structural changes (Fenton et al., 2014; Mikulewicz, 2018; Omukuti, 2020a; Rasmussen, 2018).

2. Background

2.1 The contested meaning of transformational adaptation

Transformation, defined as 'a change in the fundamental attributes of natural and human systems,' is increasingly seen as necessary to adequately respond to climate change (IPCC, 2022). However, what is considered a fundamental attribute is contested (Blythe et al., 2018; Eriksen et al., 2015; Feola, 2015; Few et al., 2017; O'Brien, 2012; Patterson et al., 2017). This lack of clarity provides opportunities for the term to be selectively conceptualized in ways that privilege certain aspects of the transformation process over others. How the term is defined has important implications for which dimensions of transformation are prioritized and ultimately who benefits. Many scholars remain wary of normative claims that transformative outcomes are necessary and positive for people at local scales (Blythe et al., 2018; Braun, 2015; Eriksen et al., 2021; Few et al., 2017; Gillard et al., 2016; Lonsdale et al., 2015; O'Brien, 2012; O'Brien et al., 2014).

Powerful actors, including government officials, local elites and powerful businesses, have entrenched interests in the status quo, and thus may not be supportive of transformations that address structural causes of vulnerability (Blackburn, 2018; Carr, 2019; Eriksen et al., 2015; O'Brien & Selboe, 2015). As a result, power imbalances can lead to adaptation interventions that are ineffective, and can have unequal benefits that

²Adaptation is defined as 'Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities' and mitigation as 'In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases' (UNFCCC, 2021).

harm the most vulnerable (Eriksen et al., 2015; O'Brien & Selboe, 2015). In other words, adaptation actions that emphasize breadth of change may constrain local adaptation efforts that prioritize depth and address social issues (Adger et al., 2005; Cash & Moser, 2000; Kuhl, 2018; Rasmussen, 2018).

2.2 Scalability and replicability as metrics of transformation in climate finance

The GCF addresses transformation through the funding priority of 'paradigm shift potential,' which it defines as the 'degree to which the proposed activity can catalyse impact beyond a one-off project or programme investment' (GCF, 2015) and, as presented in Section 4.2, GCF guidance for transformation emphasizes scalability and replicability. Reid and Schipper (2014, p. 10) define scaling-up as any activity that moves adaptation activities from a 'collection of local projects to something which would reach a much wider spectrum of vulnerable people.' Replication is considered efforts to reproduce specific interventions in different locations, often through multiple, small initiatives (Fenton et al., 2014; Kato et al., 2014; Pelling, 2011). While scalability and novelty may sometimes be compatible, some of the most novel transformations may also be the most challenging to scale-up, particularly in the short term (Geels, 2002; Rip & Kemp, 1998). These dynamics place the speed of change directly in tension with the depth of change.

A consequence of using scaling-up and replication as metrics of transformation is that it may privilege these adaptation strategies over those that are well-suited to a particular context or social or behavioural changes that take longer to implement (Kasdan et al., 2021). As a result, more technical approaches to adaptation are likely to be valued and ultimately funded (Nightingale et al., 2020). Ajibade and Adams (2019, p. 859) argue that transformational adaptation's focus on 'large-scale material outcomes' may actually 'exacerbate vulnerability for marginalized groups.' These concerns raise the importance of addressing the depth of change when designing transformation adaptation measures to avoid maladaptive strategies.

Further, scholars have expressed concern that the language of transformation is being utilized to encourage developing countries to design adaptation programmes and policies to align with internationally-determined funding priorities they would not otherwise demand (Bertilsson & Thörn, 2020). This type of critique of climate finance is not new. Despite the potential of transformational adaptation to address structural drivers of vulnerability, there is a risk that investments in transformational adaptation will face the same top-down power dynamics that previous climate investments faced (i.e. REDD+ projects) (Brockhaus et al., 2017; Holmgren, 2013; Loft et al., 2017), particularly if the emphasis is solely on transformation through breadth and speed.

2.3 Country ownership and local priorities in adaptation finance

The principle of country ownership has been recognized as one way to mitigate the top-down power dynamics inherent in climate-related development (Paris Declaration on Aid Effectiveness, 2005; UNFCCC, 2018). To achieve the goals of country ownership, climate funds have promoted a mechanism known as 'direct access.' Direct access was an innovation first piloted by the Adaptation Fund (Fenton et al., 2014), and the perceived success and lessons learned have informed its expansion to the GCF (GCF, 2011). Direct access is intended to decentralize decision-making from the boards of climate funds to national actors and civil society (Ciplet et al., 2013; Gomez-Echeverri, 2013; Omukuti, 2020b). The rationale is that direct access might provide 'an opportunity for communities to achieve a greater voice in the allocation of finance to address community-level adaptation needs' (Fenton et al., 2014).

Despite commitments to country ownership, ensuring this in practice has proven challenging for climate finance institutions. Over time the GCF has a goal of channelling 50% of funding through direct access entities (GCF, 2020).³ However, the GCF has 62 approved accredited direct access entities (49 national and 13 regional), representing 60% of the accredited entities, but only 14 of the 107 approved adaptation or cross-cutting

³The GCF has several programmes to support direct access entities, including accreditation support and a simplified approval process (SAP) for relatively small projects.

projects had been awarded to national direct access entities by the end of 2020 (and an additional 6 to regional direct access entities) (GCF, 2021).⁴

Numerous studies have critiqued climate funds for their lack of attention to local institutions (Baudoin & Ziervogel, 2017; Colenbrander et al., 2018; Manuamorn et al., 2020; Mikulewicz, 2018; Omukuti, 2020b; Soanes et al., 2017). Critics argue that the system of climate finance governance prioritizes government control of climate finance at the expense of meaningful engagement of sub-national actors and focuses on the institutional capacity to manage projects rather than local responsiveness (Bertilsson & Thörn, 2020; Omukuti, 2020b). As Reid and Huq (2014, p. 291) highlight, government structures are 'notoriously slow to take action and respond to local needs,' particularly of the most vulnerable.

Evidence of the effectiveness of direct access in promoting local adaptation is mixed. Manuamorn and Biesbroek (2020) found that direct access projects are more community-focused, but that capacity-building of community-based organisations must be enhanced, and local stakeholders must be empowered to fully engage the most vulnerable (Manuamorn & Biesbroek, 2020). A recent analysis of Adaptation Fund projects found that community-focused adaptation was possible in both direct and indirect access modalities (Manuamorn et al., 2020, p. 102035). Similarly, Soanes et al. (2017) found little evidence that direct access is leading to more effective local project delivery. However, stakeholders in developing countries considered direct access entities to be more representative and responsive to country interests, more familiar with the local context and cultural preferences, and offer better knowledge-sharing and retention (Asfaw et al., 2019). This suggests that despite the concerns raised in the literature regarding direct access, stakeholders in developing countries see benefits.

Country ownership also has material implications for the *types* of adaptation strategies that projects incorporate. Comparisons of top-down and bottom-up planning processes find that top-down processes tend to emphasize infrastructural or technological solutions, while bottom-up approaches focus on social or institutional solutions (Mikulewicz, 2018; Omukuti, 2020a; Rasmussen, 2018). While these studies were not looking at transformation *per se*, this suggests that the bottom-up processes of country ownership may be more likely to focus on depth of change.

Country ownership is viewed as a critical means of ensuring climate justice and equity (Omukuti, 2020a, 2020b), goals that are entirely consistent with visions of transformation, but only if developing country governments and societies themselves want to transform. This is particularly critical when considering the depth of change, as this often requires structural changes that can conflict with existing power dynamics and cultural practices. With the potential tensions that exist between transformational adaptation and country ownership, it is important to not assume that transformation goals are shared by all actors or at all scales.

3. Methods

Our project analysed approved GCF proposals, with a focus on national direct access entities to answer the research question: Does the prioritisation of transformational adaptation, as conceptualized by the GCF investment criteria and interpreted by applicants, privilege adaptation strategies that are easily scalable and replicable at the expense of adaptation strategies that focus on deep structural or behavioural change? We employed narrative synthesis, a textual analysis approach that allows for a systematic review and synthesis of findings (Popay et al., 2006). This method has been found to be useful in development-related research, including for analysing different types of development interventions (c.f. Snilstveit et al., 2012) and perceptions of climate change (c.f. Lee et al., 2020). Our two-step approach included both quantitative and qualitative analysis.

Our first step was content analysis, a mostly quantitative technique that uses the creation of a priori categories to code and then tabulates those codes for frequency (Popay et al., 2006; Snilstveit et al., 2012). Our content analysis was conducted across the full portfolio of approved adaptation and cross-cutting projects (n = 107). The goal was to count the frequency of keywords related to transformational adaptation across the portfolio and compare the frequency with which these terms were used in the projects submitted by national direct access entities (n = 14) and the multilateral and regional access entities (n = 93). To ensure

⁴An additional 3 national direct access adaptation and cross-cutting projects were approved in 2021.

that we captured all relevant references, we systematically searched the entirety of proposals for the terms transform, paradigm, scaling-up and replication using the following search terms: 'transform,' 'paradigm,' 'scale' and 'replica.' All projects were independently coded by two members of the research team, and any discrepancies between coders were resolved through coordinated analysis. The result was a quantitative understanding of differences between direct access and non-direct access entities.

Our second step was a thematic analysis, a qualitative technique used to systematically identify important and/or common themes across multiple documents or studies (Popay et al., 2006). The thematic analysis

ID	Title	Country	Implementing entity	Date approved	Adaptation or cross-cutting
FP001	Building the Resilience of Wetlands in the Province of Datem del Marañón, Peru	Peru	Peruvian Trust Fund for National Parks and Protected Areas (Profonanpe)	October 2015	Cross-cutting
FP003	Increasing Resilience of Ecosystems and Communities through Restoration of the Productive Bases of Salinized Lands	Senegal	Centre de Suivi Ecologique	October 2015	Adaptation
FP022	Development of Argan Orchards in Degraded Environment – DARED	Morocco	Agency for Agricultural Development of Morocco (ADA)	September 2016	Cross-cutting
FP023	Climate Resilient Agriculture in three of the Vulnerable Extreme Northern Crop-growing Regions (CRAVE)	Namibia	Environmental Investment Fund (EIF)	September 2016	Adaptation
FP024	Empower to Adapt: Creating Climate- Change Resilient Livelihoods through Community-Based Natural Resource Management in Namibia	Namibia	Environmental Investment Fund (EIF)	September 2016	Adaptation
FP045	Ground Water Recharge and Solar Micro Irrigation to Ensure Food Security and Enhance Resilience in Vulnerable Tribal Areas of Odisha	India	National Bank for Agriculture and Rural Development (NABARD)	April 2017	Adaptation
FP058	Responding to the Increasing Risk of Drought: Building Gender-responsive Resilience of the Most Vulnerable Communities	Ethiopia	Ministry of Finance and Economic Cooperation of the Federal Democratic Republic of Ethiopia (MoFEC)	November 2017	Adaptation
FP061	Integrated Physical Adaptation and Community Resilience through an Enhanced Direct Access Pilot in the Public, Private and Civil Society Sectors of Three Eastern Caribbean Small Island Developing States	Antigua and Barbuda, Dominica, Grenada	Department of Environment, Ministry of Health and Environment, Government of Antigua and Barbuda (DOE_ATG)	March 2018	Adaptation
FP073	Strengthening Climate Resilience of Rural Communities in Northern Rwanda	Rwanda	Ministry of Environment (MoE)	March 2018	Cross-cutting
SAP001	Improving Rangeland and Ecosystem Management Practices of Smallholder Farmers under Conditions of Climate Change in Sesfontein, Fransfontein and Warmquelle Areas of the Republic of Namibia	Namibia	Environmental Investment Fund (EIF)	March 2018	Adaptation
SAP006	Building Resilience of Communities Living in Landscapes Threatened under Climate Change through an Ecosystems-based Adaptation Approach	Namibia	Environmental Investment Fund (EIF)	February 2019	Adaptation
SAP008	Extended Community Climate Change Project-Flood (ECCCP-Flood)	Bangladesh	Palli Karma-Sahayak Foundation	November 2019	Adaptation
SAP010	Multi-Hazard Impact-Based Forecasting and Early Warning System for the Philippines	Philippines	Landbank of the Philippines	November 2019	Adaptation
FP133	Resilience to Hurricanes in the Building Sector in Antigua and Barbuda	Antigua and Barbuda	Ministry of Health and Environment	August 2020	Adaptation

Table 1. National direct access projects funded by the GCF through 2020.

focused on the 14 approved national direct access adaptation and cross-cutting proposals to the GCF through the end of 2020 (Table 1). We centred our analysis on the national direct access projects because we expected that these would be the proposals most likely to reflect priorities within the project sites in their conceptualisation of transformational adaptation, as prioritising local adaptation needs remains one of the primary rationales for direct access. This allowed for a qualitative understanding of how transformation is understood within direct access proposals to the GCF.

Over half of the projects were in Africa (8 out of 14). Most countries had only one approved project; Namibia was an exception with 4 approved projects. Although there is a commitment on the part of the GCF to increase access to funding by direct access entities, the number of approved projects was relatively stable from year to year, and declined in 2020. Most projects (11) were adaptation focused, with the remainder cross-cutting. Ten were full project proposals, with 4 of the most recent proposals funded through the Simplified Approval Process for direct access entities (SAP).⁵

Project proposal documents were downloaded from the GCF website. They varied in length from 62 to 142 pages, with an average of 83 pages. We describe our results in two ways: first, we holistically analysed the narratives in the section in which the proposal articulates how the project meets the investment criteria of paradigm shift potential and country ownership, synthesising key themes based on the sub-categories identified in GCF guidance.

Secondly, because references to transformation existed throughout the proposals, we expanded our thematic analysis to include references to transformation, paradigm shift, scaling-up and replication in all sections except addendums. Relevant text from the content analysis was extracted and entered into a database. The full paragraph in which the keyword was used was included so that the keyword could be analysed in context. All references were analysed to ensure their relevance to the concepts. Non-relevant uses of the terms, including formal names of policies, organisations or projects were excluded. All proposals were reviewed to develop the coding schema and then systematically coded accordingly. These codes were used to identify and analyse the primary processes of transformation discussed in the proposals.

4. Results

We found that the GCF direct access proposals frame transformation in terms of breadth and speed, rather than depth, resulting in a stronger emphasis on scalable techno-managerial solutions over social and behavioural change.

4.1 Keyword analysis

While we expected all proposals to articulate how projects related to transformation, given that it is an investment criterion of the fund, the extent and way proposals addressed transformation varied widely. In the direct access proposals, the term 'transform' was used 153 times and 'paradigm shift' was used 84 times, but some projects only included a few references, while others used the terms extensively (Table 2). The terms 'scale' and 'replica' were used even more frequently, with 648 instances of scale and 175 of replicate. Several projects included over 150 references to scale and replication, indicating the central importance that these concepts played in the project design. Of note, there was not a trend toward increased inclusion of these terms over time, even as guidance from the GCF shows growing attention to them (Kasdan et al., 2021).

We did not find a notable difference in the frequency with which the keywords are referenced in national direct access proposals compared to the other proposals. On average, proposals from multilateral or regional implementing entities used the term 'transform' 9.6 times, compared to 10.9 times in the sample of national implementing entities. Similarly, for 'paradigm shift' the average was 5.2 compared to 6. 'Scale' appeared on average 40.8 times compared to 46.3 and replicate 10.0 times compared to 12.5 (Table 2). While similar,

⁵The SAP is a process designed to encourage applications from direct access entities. Given trends in SAP proposals, it appears to be a preferred mechanism for applying for funding, although recent analyses suggest that the process is still quite complicated (Milano et al., 2021).

ID	Transform	Paradigm-shift	Scale	Replicate
FP001	3	1	5	3
FP003	0	2	45	21
FP022	8	2	3	0
FP023	19	16	130	33
FP024	2	4	29	5
FP045	12	4	19	4
FP058	14	4	52	10
FP061	18	5	58	4
FP073	26	6	110	54
SAP001	18	6	65	11
SAP006	13	10	65	15
SAP008	4	5	9	3
SAP010	6	7	19	2
FP133	10	12	39	10
Total counts (avg)	153 (10.9)	84 (6)	648 (46.3)	175 (12.5)
Total counts in multilateral and regional proposals (avg)	893 (9.6)	481 (5.2)	3794 (40.8)	930 (10.0)

Table 2. Counts of keywords in national direct access project proposals.

notably, proposals from national implementing entities used the keywords more than other proposals. See the Supplementary Material (SM) for the full results from the multilateral and regional proposals.

4.2 Responding to the GCF investment criteria

As shown in Table 3, GCF guidance indicates that the paradigm shift potential should include five coverage areas, as applicable, and country ownership should address three coverage areas. Here we discuss key themes identified in the reviewed GCF proposals in response to these criteria.

4.2.1 Paradigm-shift potential

Guidance on transformational change from the GCF contains multiple concepts, posing potential challenges for project designers to determine how to best meet the fund's expectations (Kasdan et al., 2021). While all proposals contained text addressing each coverage area, every proposal gave more attention to the first coverage area, illustrating the importance of scalability and replicability in GCF project design. This emphasis makes clear that proposals prioritized metrics that privilege breadth and speed over depth of change.

Potential for scaling-up and replication: All proposals gave this area the most attention. Proposals frequently discussed scaling-up successful outcomes, either of past initiatives or those to be funded by the GCF. There was often emphasis on scaling-up or replicating in similar regions (e.g. those with similar populations or livelihood types). Common methods for scaling-up and replication included sharing lessons learned (e.g. on introducing technology), capacity-building (from local to national scales), promoting market integration (e.g. increasing production of small-scale farmers), creating public-private partnerships and mainstreaming new practices into national policies. In a few cases, proposals focused on developing 'bottom-up' initiatives that could be replicated.

Potential for knowledge and learning: Attention to this area and the following ranged from very brief to very detailed. Across proposals, there was an emphasis on Monitoring and Evaluation (M&E) to document and assess lessons learned. There was also notable attention to sharing knowledge through networks that would be leveraged or created by the project to facilitate communication across scales, sectors and groups. Numerous proposals focused on capacity-building of stakeholders (with emphasis on local communities) to increase participation in private and public sectors and engage in project outcomes. Some proposals also discussed technical learning related to project components (e.g. new water infrastructure).

Contribution to the creation of an enabling environment: Across proposals, there was attention to strengthening existing or creating new policy, mostly at the national scale, although also at the local and occasionally the international scale, to promote project outcomes. There was also a focus on facilitating public-private partnerships, as well as connecting these to civil society and NGOs. Some proposals discussed technological

Criterion	Definition	Coverage area	Activity-specific sub-criteria
Paradigm- shift	Degree to which the proposed activity can catalyse impact beyond a one-off project or programme investment	Potential for scaling-up and replication	Innovation Scalability Benlicability
potentia	project of programme investment	Potential for knowledge and learning	Contribution to the creation or strengthening of knowledge, collective learning processes or institutions
		Contribution to the creation of an enabling environment	Sustainability of outcomes and results beyond completion of the intervention
			Market development and transformation
		Contribution to the regulatory framework and policies	Potential for strengthened regulatory frameworks and policies to improve climate-responsive planning and development
		Overall contribution to climate-resilient development pathways consistent with a country's climate change adaptation strategies and plans	Scalability Replicability
Country Ownership	Beneficiary country ownership of, and capacity to implement, a funded project or programme (policies, climate strategies and institutions)	Existence of a national climate strategy and coherence with existing policies	Objectives are in line with priorities in the country's national climate strategy and designed in cognisance of other country policies
		Capacity of accredited entities or executing entities to deliver	Experience and track record of the Accredited Entity or executing entities in key elements of the proposed activity
		Engagement with civil society organisations and other relevant stakeholders	Stakeholder consultations and engagement

Table 3. GCF investment criteria of paradigm shift potential and country ownership.

Note: Criteria that are exclusively relevant for mitigation are not included here. Instructions for the more recent SAPs consolidate multiple coverage areas, likely resulting in less specific attention to each coverage area within those three proposals. Modified from GCF (2015).

approaches, such as producing tools to increase institutional capacity, rapid communication or coordinated efforts among groups.

Contribution to regulatory framework and policies: Proposals tended to give relatively brief attention to this area. The most consistent theme was strengthening existing policies, including better integration across scales and sectors. There was also attention to supporting the implementation of new policies, including those related to the Paris Agreement. Some proposals discussed mainstreaming successful efforts proposed by the project. Several focused on related topics of encouraging participatory processes, co-management of resources and scaling-up community-level successes to the national scale.

4.2.2 Country ownership

This section tended to be short (half a page to one page) and proposals varied widely in how they demonstrated the country ownership criterion. For example, a Namibia proposal discussed the existing capacities of implementing partners to mainstream and upscale the project. A proposal for Rwanda focused on the country's strong history of adaptation and identified existing funds and agencies which were prepared to upscale the project, as well as economic and environmental sectors with potential to adopt elements of the project. A multi-country project led by Antigua and Barbuda emphasized the capacity to take ownership in each country and focused on country ownership in terms of the private sector taking charge of upscaling different project aspects. Surprisingly, few projects discussed the fact that these were direct access proposals, and only three projects explicitly discussed the relationship between transformation and direct access, arguing that direct access could transform the way that climate change was addressed in the country, shifting policy from top-down to bottom-up control and identifying climate finance delivery as an object of transformation. The project in the Eastern Caribbean was one of the few that addressed this directly, stating, The transparent decision-making and financing mechanisms supported by the EDA will support a paradigm shift by channelling climate finance, acting as a link between international climate finance flows and domestic policies and priorities, leveraging private sector involvement in climate activities, and increasing domestic coordination of financial flows for climate and environment. (FP061, p. 5)

4.3 Interpreting the meaning of transformational adaptation in GCF proposals

Based on our thematic analysis, we identify multiple processes for promoting transformation articulated in our sample. These processes, identified in Table 4, include transformation through: markets; enhancing adaptive capacity/management; promoting climate-resilient development; empowerment of women; participatory planning and encouraging low-emission development. We also identified themes through which projects articulated how scaling-up and replication would occur. These included: learning and knowledge-sharing; mainstreaming; demonstration; capacity-building; geographic relevance and the private sector.

The most common process by which proposals articulated transformational change was through market transformation. For the nine projects that discussed market transformation, it dominated the narratives. Proposals discussed multiple types of market transformation, including transforming natural resources into products for the market and transforming people from subsistence farmers to producers for a market. Underlying these narratives was a consistent argument that through participation in markets and strengthening of market systems, development trajectories could be transformed, and that market participation was key to ensuring a sustainable, climate-resilient future. The CRAVE proposal in Namibia clearly illustrates this theme:

The entire CRAVE business model (that is, paradigm shift) is to enable vulnerable [small-scale farmers] to penetrate the local and national agricultural economy from a purely subsistence production model towards full market penetration. This is premised on creating value chains ... to ensure scale-up, future uptake and sustainability of the results. Thus, a full shift in the value chain is anticipated, with long-term transformational results. (FP 023 p. 6)

While market-based approaches are increasingly common in development practice, the evidence of the benefits for the most vulnerable is mixed, and it is not always clear that market transformations will enhance adaptive capacity, as market participation is also associated with increased risk, especially when markets are international (Bolwig et al., 2010; Kuhl, 2018; Suzuki et al., 2011).

The second most common process, found in 8 of the 14 proposals, was changes in management practices. This included individual management decisions, all the way up to larger landscape management practices. A

	Description	Total
Transformation and paradigm	n shift potential	
Markets	Engagement in markets will be transformational/ paradigm shifting through transformation of livelihoods from subsistence to market-oriented, natural resources into products for markets, and broader economic transformation	9/14
Adaptive capacity/ management	Transformation/ paradigm shift will be achieved by changing management approaches and enhanced adaptive capacity	8/14
Climate-resilient development	Project will contribute to transformation/ paradigm shift toward climate-resilient development	7/14
Empowerment of women	Project will have transformative/ paradigm-shifting impacts by empowering women	6/14
Participatory planning	Participatory planning represents a transformation/ paradigm shift in local governance	4/14
Low-emission development Scaling-up/replication	Project will support a transformation to low-emission development	6/14
Mainstreaming	By mainstreaming into government policies or programmes the project will be scaled-up/replicated	12/ 14
Learning and knowledge sharing	Sharing of lessons, knowledge and best practices will enable scaling-up/replication	11/ 14
Geographic relevance	The results can be scaled-up/replicated to other similar geographic areas	11/ 14
Demonstration	By demonstrating successes, scaling-up/replication will occur	10/ 14
Capacity-building	Building institutional capacity will enable scaling-up/replication	7/14
Private sector	Private sector will scale up/replicate results	7/14

Table 4. Transformation Processes in GCF proposals.

10 👄 L. KUHL AND J. SHINN

project in Rwanda exemplified the type of technical management changes typically described as transformational:

The project will provide the technical assistance (climate risk screening, slope planting guidance) to identify suitable higher elevation sites for growing coffee under climate change, demonstrating the required agro-ecological shift and transformative adaptation that will be needed under climate change. It will also introduce new resilient coffee varieties that have been developed in Rwanda ... at scale. The project will also introduce successional agroforestry for coffee, which ... will provide a template for a paradigm shift for the Rwandan coffee sector. (FP073, p. 31)

By relying on technical adaptation strategies and management practices, the proposal claims transformation can be easily scaled and replicated across the entire coffee sector.

While these narratives primarily relied on economic and technical strategies to achieve transformation, proposals also more broadly discussed a transformation to climate-resilient development. This theme captured a broader transformation in approach to development, as articulated in the project on flood management in Bangladesh:

One of the major expected paradigm shifts is to change the mind-set of the community people towards climate resilient development from conventional development.... It is expected that regular exercise of climate change-oriented activities for 4 years will help them addressing climate change in the long run. In addition, the visible impacts of the project activities will works as driving force to change the existing mind-set of the vulnerable community. (SAP 008, p. 60)

However, despite the opportunity that the framing of climate-resilient development offers to engage with depth dimensions of transformation, including the changes in mindset discussed here, many projects framed climate-resilient development explicitly in terms of climate-smart agriculture. In these proposals, transformation was again articulated primarily in technical terms.

Two themes explicitly addressed social exclusion and inequality as barriers to transformational change, and argued that it was through these social and political changes that transformation would be achieved. Both processes suggested that it is by addressing key barriers to equality that projects will contribute to transformation, representing a more radical understanding of transformation. For example, a project on rangeland management in Namibia argued for the transformational potential of gender equity: 'the project will provide a series of capacity development and skill trainings on gender ... [that] will have a transformative and long-lasting impact on gender equality and women's empowerment by demonstrating the multiple values of gender responsive planning and budgeting' (SAP001, p. 36). While the number of proposals that included these themes was not drastically different from the number of proposals that included other themes, they were not nearly as dominate a narrative within those proposals as other themes.

Low-emission development was articulated as a goal of transformation in six projects, which is surprising given that the sample did not include mitigation projects. We might expect low-emission development to be a transformational goal in the cross-cutting projects given that they have mitigation objectives, but surprisingly five of the six proposals were adaptation-only projects. Given the disparities in climate finance that favour mitigation over adaptation, it is concerning, but perhaps not surprising, that adaptation projects articulated their transformational potential in terms of mitigation. Although adaptation projects may have mitigation co-benefits, and mitigation/adaptation synergies should be encouraged, this finding suggests that further analysis of the extent to which mitigation goals are achieved through adaptation projects is worthy of investigation. We did not identify any notable distinctions between the adaptation and cross-cutting projects for other processes.

The themes for scaling-up and replication related to the *mechanism* through which scaling-up and replication would be achieved. Mainstreaming was included in all but 2 projects. Proposals argued that scaling-up or replication would be achieved by mainstreaming aspects of the project into government policies. In some cases, proposals suggested that government would take on the approaches undertaken by the project after its conclusion. In other cases, the project specifically developed policies or generated data to facilitate mainstreaming adaptation into government agencies. The theme of learning and knowledge sharing was discussed in 11/14 projects. In these cases, proposals argued that the lessons learned and knowledge gained through the project would allow other actors or projects to scale-up or replicate adaptation. Given that adaptation is still a relatively new field of practice in many countries, this emphasis on learning and knowledge sharing is not surprising. Almost all proposals (11/14) focused on the geographic relevance of the project, focusing not only on *who* would be scaling-up or replicating results or *how* this would be done, but also *where* the results would be scaled-up or replicated beyond the original project site. Ten proposals argued that the successful demonstration of adaptation approaches by the project would facilitate scale-up and replication by others. From this perspective, it was not through its direct funding but through its catalytic role that the GCF affects transformation.

Capacity-building references (7/14 projects) focused on how increased capacity would enable a wide range of actors to scale-up or replicate adaptation efforts. Despite the significant literature highlighting the transformative potential of adaptive capacity, particularly in terms of lifting people out of poverty, capacity-building was referenced primarily in terms of scalability and replicability, rather than focusing on the transformative potential for the primary beneficiaries of the project itself. Finally, half the proposals focused specifically on the role of the private sector in scaling-up/replication. These proposals placed a strong emphasis on the importance of creating an enabling environment for private sector engagement and argued that it was through this engagement that scaling-up and replication would be achieved. This is potentially in tension with efforts to support the most vulnerable, as it is not clear that the private sector is well-suited to address the adaptation needs of the most vulnerable (Kuhl, 2021).

5. Discussion

Despite our expectations that direct access proposals would be the most likely to include conceptions of transformation that reflected local priorities, transformational potential in the proposals often referred not to outcomes within the projects themselves, but the scaling-up and replication of these results beyond the project. This suggests that within the GCF, breadth and speed of transformation is prioritized over the intensity (or depth) of transformation. There is a clear emphasis on supporting transformations that have large-scale impacts. While this makes sense from a funding perspective, what is concerning is the lack of attention to the impacts such transformations could have on the local scale.

While our identification of multiple processes for transformation shows the complexity of how transformation is approached within in GCF proposals, we find that many of these processes are technical in nature, particularly related to market transformations and uptake of new technologies and management strategies. These processes are consistent with aspects of transformation that align with breadth and speed and suggest an alignment of proposals with an international push for transformation through technical adaptation strategies, as opposed to local engagement and capacity building. While we found some noteworthy attention to the concept of capacity-building in project proposals, even this focused on how capacity gained through the project would lead to scaling-up and replication rather than creating structural local-scale changes. The result is that the processes of transformation that are ultimately funded may directly address climate risk but do not transform underlying causes of social vulnerability that create risk in the first place (Few et al., 2017). By avoiding (or ignoring) complex local dynamics, proposals appear to have side-stepped the more progressive or radical social aspects of transformational change.

Learning lessons is a critical aspect of transformational change and features prominently in the GCF's logical framework as well as the narratives of project proposals, but narratives assumed that lessons learned in one context will translate into projects elsewhere to allow for successful scaling-up and replication. In line with the analysis of Boodoo et al. (2018), we find a greater emphasis in proposals on learning *across* projects, rather than learning *within* projects. More broadly, many references to transformational potential referred not to the project outcomes themselves, but the scaling-up and replication of these results *beyond* the project.

In the few cases that proposals promoted transformation within a project site, they continued to focus on market-based and technical changes, which are assumed to result in empowerment and capacity building, with insufficient attention to potential barriers to these approaches. For example, a project in Peru aimed at expanding commercially viable non-timber forest products stated that, 'all activities foster empowerment and community ownership, improve livelihoods, enhance learning opportunities, and consolidate indigenous peoples' basic rights' (FP001, p. 2). However, this assumes that market-based approaches to environmental management are widely desirable and reflected local priorities. Assumptions that direct access entities accurately reflect local

priorities were evident across the portfolio, bringing into question how accurately the ways transformation is prioritized in GCF proposals reflects needs and desires from within project sites.

Actively engaging with local-level actors during proposal development is critical to address concerns about the potential negative impacts of transformation for impacted communities. Channelling more funding not only to national implementing entities, but more directly to the local level is one proposed response (Baudoin & Ziervogel, 2017; Ciplet et al., 2013; Colenbrander et al., 2018; Fenton et al., 2014). Pilot programmes in the GCF and the Adaptation Fund have explored Enhanced Direct Access (EDA), which devolve responsibility over climate finance further to the local level (Murray et al., 2015). Preliminary findings from our analysis, which included two EDA proposals (FP024 in Namibia and FP 061 in Antigua and Barbuda, Dominica and Grenada), suggest that the potential synergies between transformational adaptation and country ownership might be stronger in EDA proposals.

Greater devolution of power in adaptation finance is consistent with calls for transformational change. Many GCF stakeholders themselves argue that systemic changes are not possible unless there is strong country ownership to sustain changes in the policy environment over the long-term (Asfaw et al., 2019). However, our analysis suggests that current models of direct access do not go far enough to address local drivers of vulnerability and the need for deep structural change. Without greater involvement of local-scale actors, direct access entities risk overlooking the needs of the most vulnerable to climate change. Funders like the GCF must acknowledge the top-down power dynamics inherent in climate finance and support transformational processes that prioritize not only breadth and speed, but also those that emphasize depth of change to create real structural changes in the lives of vulnerable people.

5.1 Limitations and future directions

An important limitation of this analysis is that it only provides insight into the narratives of transformational adaptation as articulated in proposals but cannot speak to implementation on-the-ground. It is possible that the balance between breadth, speed and depth is different in practice compared to in the proposals. Additionally, it does not address insights into why the proposals are written the way they are, i.e. from actors engaged in the proposal preparation. That said, the proposals give a strong indication of the intent of the project and represent the way that the project design reflects the perception and interpretation by applicants of the GCF investment criteria. A future direction for this research would be to analyse transformation in these projects during and after implementation. Annual reports and evaluations could be a useful data source for this analysis, along with field work to interview actors engaged in project design and implementation.

A second limitation is that only approved proposals were available for analysis, making it impossible to compare narratives that were successful to those that were not. However, the political nature of the GCF funding process means that proposals are rarely rejected outright; in fact, in only two instances has a project been formally rejected by the Board. Rather, the approval process is a negotiation between the GCF Board and the project development team. We, therefore, interpret the proposal document as indicative of this negotiation and reflecting a version of the project that is designed to meet GCF approval. There are also proposals (to date more than 100 adaptation and cross-cutting projects) that have been submitted as Concept Notes but have not advanced to approval. It is not clear whether these proposals are awaiting further negotiation or development before advancing to approval, or if they have been tacitly rejected. This would be a worthy of further investigation, especially if the narratives of transformation are qualitatively different among this group of proposals compared to the approved projects analysed here.

It would also be interesting to compare the narratives of transformation processes in the broader portfolio to the direct access projects we analysed in depth. While our content analysis did not identify clear differences between proposals submitted by direct access and international entities, it is possible that there are different processes of transformation represented in other projects. The question of whether these non-analysed proposals emphasize depth of transformation more than breadth or speed is an empirical one worthy of exploration. If the balance between processes of transformation that emphasis depth rather than breadth or speed is greater than those in the direct access entity proposals, it would suggest a need to revise the storyline that 'country-owned' proposals better prioritize transformation at the local scale.

6. Conclusions

Our analysis finds that language regarding transformational adaptation is included in direct access proposals even more so that those submitted by multilateral and regional entities. These direct access proposals place significant emphasis on the potential for scalability and replicability beyond the project site, with limited attention to the depth of transformation at the local level. We argue that without greater attention to inclusive approaches, particularly those that focus on transformation *within* the most vulnerable communities, international climate finance risks supporting only those aspects of transformation that are easily scalable and replicable and replicable and overlooking critical issues of social justice.

Of all projects in the GCF portfolio, theoretically direct access project proposals are the most likely to include approaches to transformational adaptation that reflect local priorities, and should be better attuned to the local politics that underpin deep structural transformational change. However, our analysis indicates that the priorities of scalability and replicability, which place the primary transformational potential *outside* the local site of intervention, have dominated the discourse on transformation *even* within these proposals. This tension between deep transformation at the local site and transformation *beyond* the project reveals important challenges that must be considered by the international climate finance community. Concerningly, no proposals reflected on the potential tensions that may arise between these priorities for transformation. Our findings suggest that greater reflection on politics within climate finance is needed to ensure that all aspects of transformation receive support.

While direct access is often touted as a way to bring international finance to the local level, the concerns presented in this paper bring into question how radically different the direct access model is from previous adaptation funding efforts. Even within direct access, there is a challenge to truly reflect local priorities because the ways transformation is framed privilege adaptation strategies that are easily scalable and replicable at the expense of adaptation strategies that are deeply embedded in local contexts and responsive to local needs. If the international community is committed to financing local priorities, protected funding windows focused on depth of change are required to ensure they are not competing with (and losing out to) transformation focused on breadth and speed. This could take place within the GCF, as well as in collaboration with other funds, like the Adaptation Fund. Without such a change, the significant momentum surrounding transformational adaptation will miss opportunities to address the deep structural issues underlying sources of local vulnerability, and therefore the true goals of transformational change.

Acknowledgement

We would like to thank Martin Aucoin and Brandon Rothrock for their research assistance with this paper.

ORCID

Laura Kuhl D http://orcid.org/0000-0002-1379-9435 Jamie Shinn D http://orcid.org/0000-0001-7152-7561

References

Adger, W. N., Hughes, T. P., Folke, C., Carpenter, S. R., & Rockström, J. (2005). Social-ecological resilience to coastal disasters. *Science*, 309(5737), 1036–1039. https://doi.org/10.1126/science.1112122

- Ajibade, I., & Adams, E. A. (2019). Planning principles and assessment of transformation adaptation: Towards a refined ethical approach. *Climate and Development*, *11*(10), 850–862. https://doi.org/10.1080/17565529.2019.1580557
- Asfaw, S., Jemison, C., Khan, A., Kyle, J., Ottlakán, L., Polvi, J., Puetz, D., Puri, J. (2019, October). *Independent evaluation of the Green Climate Fund's country ownership approach* (Evaluation Report No. 4). Independent Evaluation Unit, Green Climate Fund, Songdo, South Korea.
- Baudoin, M., & Ziervogel, G. (2017). What role for local organisations in climate change adaptation? Insights from South Africa. *Regional Environmental Change*, *17*(3), 691–702. https://doi.org/10.1007/s10113-016-1061-9
- Bertilsson, J., & Thörn, H. (2020). Discourses on transformational change and paradigm shift in the Green Climate Fund: The divide over financialization and country ownership. *Environmental Politics*, 30(3), 423–441. https://doi.org/10.1080/09644016.2020. 1775446

14 👄 L. KUHL AND J. SHINN

- Blackburn, S. (2018). What does transformation look like? Post-disaster politics and the case for progressive rehabilitation. Sustainability, 10(7), 2317. https://doi.org/10.3390/su10072317
- Blythe, J., Silver, J., Evans, L., Armitage, D., Bennett, N. J., Moore, N., Morrison, T. N., & Brown, K. (2018). The dark side of transformation: Latent risks in contemporary sustainability discourse. *Antipode*, *50*(5), 1206–1223. https://doi.org/10.1111/anti.12405
- Bolwig, S., Ponte, S., Du Toit, A., Riisgaard, L., & Halberg, N. (2010). Integrating poverty and environmental concerns into value-chain analysis: A conceptual framework. *Development Policy Review*, 28(2), 173–194. https://doi.org/10.1111/j.1467-7679.2010.00480.x
- Boodoo, Z., Mersmann, F., & Olsen, K. H. (2018). The implications of how climate funds conceptualize transformational change in developing countries. *Climate and Development*, 10(8), 673–686. https://doi.org/10.1080/17565529.2018.1442788
- Braun, B. (2015). Futures: Imagining socioecological transformation—An introduction. Annals of the Association of American Geographers, 105(2), 239–243. https://doi.org/10.1080/00045608.2014.1000893
- Brockhaus, M., Korhonen-Kurki, K., Sehring, J., Di Gregorio, M., Assembe-Mvondo, S., Babon, A., Bekele, M., Gebara, M. F., Khatri, D. B., Kambire, H., Kengoum, F., Kweka, D., Menton, M., Moeliono, M., Paudel, N. S., Paudel, N. S., Pham, T. T., Resosudarmo, I. A. P., Sitoe, A., ... Zida, M. (2017). REDD+, transformational change and the promise of performance-based payments: A qualitative comparative analysis. *Climate Policy*, *17*(6), 708–730. https://doi.org/10.1080/14693062.2016.1169392
- Buchner, B., Clark, A., Falconer, A., Macquarie, R., Meattle, C., Tolentino, R., & Wetherbee, C. (2019). *Global landscape of climate finance*. Climate Policy Institute.
- Carr, E. (2019). Properties and projects: Reconciling resilience and transformation for adaptation and development. *World Development*, 122, 70–84. https://doi.org/10.1016/j.worlddev.2019.05.011
- Cash, D. W., & Moser, S. C. (2000). Linking global and local scales: Designing dynamic assessment and management processes. *Global Environmental Change*, *10*(2), 109–120. https://doi.org/10.1016/S0959-3780(00)00017-0
- Ciplet, D., Roberts, J. T., & Khan, M. (2013). The politics of international climate adaptation funding: Justice and divisions in the greenhouse. Global Environmental Politics, 13(1), 49–68. https://doi.org/10.1162/GLEP_a_00153
- Colenbrander, S., Dodman, D., & Mitlin, D. (2018). Using climate finance to advance climate justice: The politics and practice of channeling resources to the local level. *Climate Policy*, *18*(7), 902–915. https://doi.org/10.1080/14693062.2017.1388212
- Conevska, A., Ford, J., & Lesnikowski, A. (2020). Assessing the adaptation fund's responsiveness to developing country's needs. *Climate and Development*, 12(5), 436–447. https://doi.org/10.1080/17565529.2019.1638225
- Cumming, G. S., Morrison, T. H., & Hughes, T. P. (2017). New directions for understanding the spatial resilience of social–ecological systems. *Ecosystems*, 20(4), 649–664. https://doi.org/10.1007/s10021-016-0089-5
- Eriksen, S., Schipper, E. L. F., Scoville-Simonds, M., Vincent, K., Adam, H. N., Brooks, N., Harding, B., Lenaerts, L., Liverman, D., Mills-Novoa, M., & Mosberg, M. (2021). Adaptation interventions and their effect on vulnerability in developing countries: Help, hindrance or irrelevance? World Development, 141, 105383. https://doi.org/10.1016/j.worlddev.2020.105383
- Eriksen, S. H., Nightingale, A. J., & Eakin, H. (2015). Reframing adaptation: The political nature of climate change adaptation. *Global Environmental Change*, *35*, 523–533. https://doi.org/10.1016/j.gloenvcha.2015.09.014
- Fazey, I., Moug, P., Allen, S., Beckmann, K., Blackwood, D., Bonaventura, M., Burnett, K., Danson, M., Falconer, R., & Gagnon, A. S. (2018). Transformation in a changing climate: A research agenda. *Climate and Development*, 10(3), 197–217. https://doi.org/10.1080/ 17565529.2017.1301864
- Fedele, G., Donatti, C. I., Harvey, C., Hannah, L., & Hole, D. G. (2019). Transformative adaptation to climate change for sustainable social-ecological systems. *Environmental Science and Policy*, 101, 116–125. https://doi.org/10.1016/j.envsci.2019.07.001
- Fenton, A., Gallagher, D., Wright, H., Huq, S., & Nyandiga, C. (2014). Up-scaling finance for community-based adaptation. Climate and Development, 6(4), 388–397. https://doi.org/10.1080/17565529.2014.953902
- Feola, G. (2015). Societal transformation in response to global environmental change: A review of emerging concepts. *Ambio*, 44(5), 376–390. https://doi.org/10.1007/s13280-014-0582-z
- Few, R., Morchain, D., Spear, D., Mensah, A., & Bendapudi, R. (2017). Transformation, adaptation and development: Relating concepts to practice. *Palgrave Communications*, 3(1), 1–9. https://doi.org/10.1057/s41599-017-0001-8
- Fonta, W. M., Ayuk, E. T., & van Huysen, T. (2018). Africa and the Green Climate Fund: Current challenges and future opportunities. *Climate Policy*, *18*(9), 1210–1225. https://doi.org/10.1080/14693062.2018.1459447
- Frazier, T. G., Thompson, C. M., Dezzani, R. J., & Butsick, D. (2013). Spatial and temporal quantification of resilience at the community scale. Applied Geography, 42, 95–107. https://doi.org/10.1016/j.apgeog.2013.05.004
- GCF. (2011). GCF governing instrument. Songdo, Korea, https://www.greenclimate.fund/sites/default/files/document/governinginstrument.pdf
- GCF. (2015). Annex III: Initial investment framework: Activity-specific sub-criteria and indicative assessment factors. https://www.greenclimate.fund/sites/default/files/document/investment-framework-criteria-assessment.pdf
- GCF. (2020). Updated strategic plan for the green climate fund: 2020-2023. https://www.greenclimate.fund/sites/default/files/ document/updated-strategic-plan-green-climate-fund-2020-2023.pdf
- GCF. (2021). "Project portfolio" portfolio dashboard. https://www.greenclimate.fund/projects/dashboard
- Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: A multi-level perspective and a case-study. *Research Policy*, 31(8-9), 1257–1274. https://doi.org/10.1016/S0048-7333(02)00062-8
- Gillard, R., Gouldson, A., Paavola, J., & Van Alstine, J. (2016). Transformational responses to climate change: Beyond a systems perspective of social change in mitigation and adaptation. *Wiley Interdisciplinary Reviews: Climate Change*, 7(2), 251–265. https://doi. org/10.1002/wcc.384

- Global Commission on Adaptation. 2019. Adapt now: A global call for leadership on climate resilience. https://gca.org/wp-content/ uploads/2019/09/GlobalCommission_Report_FINAL.pdf
- Gomez-Echeverri, L. (2013). The changing geopolitics of climate change finance. *Climate Policy*, *13*(5), 632–648. https://doi.org/10. 1080/14693062.2013.822690
- Holmgren, S. (2013). REDD+ in the making: Orders of knowledge in the climate-deforestation nexus. *Environmental Science and Policy*, *33*, 369–377. https://doi.org/10.1016/j.envsci.2013.04.007
- IPCC. (2022). Climate CHANGE 2022: Impacts, adaptation, and vulnerability. Contribution of working group II to the sixth assessment report of the intergovernmental panel on climate change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press.
- Kasdan, M., Kuhl, L., & Kurukulasuriya, P. (2021). The evolution of transformational change in multilateral funds dedicated to financing adaptation to climate change. *Climate and Development*, 13(5), 427–442. https://doi.org/10.1080/17565529.2020.1790333
- Kato, T., Ellis, J., Pauw, P., & Caruso, R. (2014). Scaling up and replicating effective climate finance interventions. Climate change expert group, OECD. Paper No. 2014(1).
- Kuhl, L. (2018). Potential contributions of market-systems development initiatives for building climate resilience. *World Development*, *108*, 131–144. https://doi.org/10.1016/j.worlddev.2018.02.036
- Kuhl, L. (2021). Policy making under scarcity: Reflections for designing socially just climate adaptation policy. One Earth, 4(2), 202– 212. https://doi.org/10.1016/j.oneear.2021.01.008
- Lee, K., Gjersoe, N., O'Neill, S., & Barnett, J. (2020). Youth perceptions of climate change: A narrative synthesis. *Wiley Interdisciplinary Reviews: Climate Change*, 11(3), e641. https://doi.org/10.1002/wcc.641
- Loft, L., Pham, T. T., Wong, G. Y., Brockhaus, M., Le, D. N., Tjajadi, J. S., & Luttrell, C. (2017). Risks to REDD+: potential pitfalls for policy design and implementation. *Environmental Conservation*, 44(1), 44–55. https://doi.org/10.1017/S0376892916000412
- Lonsdale, K., Pringle, P., & Turner, B. (2015). Transformative adaptation: What it is, why it matters and what is needed. UK climate impacts programme. University of Oxford.
- Manuamorn, O. P., & Biesbroek, R. (2020). Do direct-access and indirect-access adaptation projects differ in their focus on local communities? A systematic analysis of 63 Adaptation Fund projects. *Regional Environmental Change*, 20(4), 1–15. https://doi.org/10. 1007/s10113-020-01716-4
- Manuamorn, O. P., Biesbroek, R., & Cebotari, V. (2020). What makes internationally-finance climate change projects focus on local communities? A configurational analysis of 30 Adaptation Fund projects. *Global Environmental Change*, 61, 102035. https://doi. org/10.1016/j.gloenvcha.2020.102035
- Mikulewicz, M. (2018). Politicizing vulnerability and adaptation: On the need to democratize local responses to climate impacts in developing countries. *Climate and Development*, *10*(1), 18–34. https://doi.org/10.1080/17565529.2017.1304887
- Milano, A., Emili, S., Ginting, J., & Ballard-Tremeer, G. (2021). GCF insight #17. Stakeholder views on the Green Climate Fund's direct access modality. E co. Institute.
- Mimura, N., Pulwarty, R. S., Elshinnawy, I., Redsteer, M. H., Huang, H. Q., Nkem, J. N., Rodriguez, R. A. S., Moss, R., Vergara, W., Darby, L. S., & Kato, S. (2014). Adaptation planning and implementation. In C. B. Field, V.R. Barros, D. J. Dokken, K. J. Mach, M. D. Mastrandrea, T. E. Bilir, M. Chatterjee, K. L. Ebi, Y. O. Estrada, R. C. Genova, B. Girma, E. S. Kissel, A. N. Levy, S. MacCracken, P. R. Mastrandrea, & L. L. White (Eds.), *Climate change 2014 impacts, adaptation and vulnerability: Part A: Global and sectoral aspects* (pp. 869–898). Cambridge University Press.
- Murray, L., Müller, B., & Gomez-Echeverri, L. 2015. Enhanced direct access: A brief history (2009-15). European Capacity Building Initiative. Retrieved July 17, 2018, from http://www.oxfordclimatepolicy.org/publications/documents/EDA-Brief-Historypublished.pdf
- Nightingale, A. J., Eriksen, S., Taylor, M., Forsyth, T., Pelling, M., Newsham, A., Boyd, E., Brown, K., Harvey, B., Jones, L., Bezner Kerr, R., Mehta, L., Naess, L. O., Ockwell, D., Scoones, I., Tanner, T., & Whitfield, S. (2020). Beyond technical fixes: Climate solutions and the great derangement. *Climate and Development*, 12(4), 343–352. https://doi.org/10.1080/17565529.2019.1624495
- O'Brien, K. (2012). Global environmental change II: From adaptation to deliberate transformation. *Progress in Human Geography*, 36 (5), 667–676. https://doi.org/10.1177/0309132511425767
- O'Brien, K., Eriksen, S., Inderberg, T. H., & Sygna, L. (2014). Climate change and development; adaptation through transformation. In T. H. Inderberg, S. H. Eriksen, K. L. O'Brien, & L. Sygna (Eds.), *Climate change adaptation and development: Transforming paradigms and practices* (pp. 273–296). Routledge.
- O'Brien, K., & Selboe, E. (2015). The adaptive challenge of climate change. Cambridge University Press.
- Omukuti, J. (2020a). Do country-owned adaptation interventions reflect local level priorities? *Application of a framings approach*. *Climate and Development*, *12*(9), 827–839. https://doi.org/10.1080/17565529.2019.1699394
- Omukuti, J. (2020b). Country ownership of adaptation: Stakeholder influence or government control? *Geoforum; Journal of Physical, Human, and Regional Geosciences, 113,* 26–38. https://doi.org/10.1016/j.geoforum.2020.04.019
- Paris Declaration on Aid Effectiveness. (2005). Report. OECD. [Online] https://www.oecd.org/dac/effectiveness/34428351.pdf
- Patterson, J., Schulz, K., Vervoort, J., Van Der Hel, S., Widerberg, O., Adler, C., Hurlbert, M., Anderton, K., Sethi, M., & Barau, A. (2017). Exploring the governance and politics of transformations towards sustainability. *Environmental Innovation and Societal Transitions*, 24, 1–16. https://doi.org/10.1016/j.eist.2016.09.001
- Pelling, M. (2011). Adaptation to climate change: From resilience to transformation. Routledge.
- Pickering, J., Betzold, C., & Skovgaard, J. (2017). Managing fragmentation and complexity in the emerging system of international climate finance. *International Environmental Agreements*, *17*(1), 1–16. https://doi.org/10.1007/s10784-016-9349-2

16 😉 L. KUHL AND J. SHINN

- Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., Britten, N., Roen, K., & Duffy, S. (2006). Guidance on the conduct of narrative synthesis in systematic reviews. A product from the ESRC methods programme Version 1, b92.
- Rasmussen, L. V. (2018). Re-defining sahelian 'adaptive agriculture' when implemented locally: Beyond techno-fix solutions. *World Development*, *108*, 274–282. https://doi.org/10.1016/j.worlddev.2017.03.034
- Reid, H., & Huq, S. (2014). Mainstreaming community-based adaptation into national and local planning. *Climate and Development*, 6 (4), 291–292. https://doi.org/10.1080/17565529.2014.973720
- Reid, H., & Schipper, E. L. F. (2014). Upscaling community-based adaptation: An introduction to the edited volume. In E. L. F. Schipper, J. Ayers, H. Reid, S. Huq, & A. Rahman (Eds.), *Community-based adaptation to climate change: Scaling it up* (pp. 3–21). Routledge.
- Rip, A., & Kemp, R. (1998). Technological change. In S. Rayner, & L. Malone (Eds.), Human choice and climate change (pp. 327–399). Battelle Press.
- Snilstveit, B., Oliver, S., & Vojtkova, M. (2012). Narrative approaches to systematic review and synthesis of evidence for international development policy and practice. *Journal of Development Effectiveness*, 4(3), 409–429. https://doi.org/10.1080/19439342.2012. 710641
- Soanes, M., Rai, N., Steele, P., Shakya, C., & Macgregor, J. (2017). Delivering real change: Getting international climate finance to the local level. Working paper. IIED.
- Suzuki, A., Jarvis, L. S., & Sexton, R. J. (2011). Partial vertical integration, risk shifting, and product rejection in the high-value export supply chain: The Ghana pineapple sector. World Development, 39(9), 1611–1623. https://doi.org/10.1016/j.worlddev.2011.02.007
- UNFCCC. 2021. Glossary of climate change acronyms and terms. https://unfccc.int/process-and-meetings/the-convention/glossary-ofclimate-change-acronyms-and-terms
- United Framework Convention on Climate Change (UNFCCC). (2018). Summary and recommendations by the standing committee on finance on the 2018 biennial assessment and overview of climate finance flows, Bonn, Germany.
- United Nations Environment Programme (UNEP). (2020) The adaptation gap report. Nairobi, Kenya. https://www.unep.org/resources/ adaptation-gap-report-2020
- Winkler, H., & Dubash, N. K. (2016). Who determines transformational change in development and climate finance? *Climate Policy*, *16* (6), 783–791. https://doi.org/10.1080/14693062.2015.1033674