

The Comparative Turn in Climate Change Adaptation and Food Security Governance Research

Working Paper No. 92

CGIAR Research Program on Climate Change,
Agriculture and Food Security (CCAFS)

Mark Purdon



RESEARCH PROGRAM ON
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Abstract

Central to this working paper is the notion that the concepts and methods of comparative politics can shine light on political factors important for catalysing positive change on the governance climate change adaptation and food security in the developing world. I first introduce comparative politics, including discussion of epistemological and methodological issues, before reviewing three salient groups of political and economic factors identified by the comparative politics literature—institutions, ideas and interests—as well as highlighting the important relationship between international and domestic politics. Such organization is important because it draws attention to important gaps in the existing climate change adaptation and food security literature, which tends towards a form of normative analysis that privileges institutions. The paper closes by making five recommendations for CCAFS future research: the need (i) to identify new dimensions for institutional research, (ii) to conduct governance research beyond institutions, (iii) to embrace more rigorous comparative methods, (iv) to address the “dependent variable” problem in climate change adaptation research and (v) to come to grips with “good enough” climate governance.

Keywords

Climate Change; Adaptation; Food Security; Comparative Politics; Governance; Institutions; Interests; Ideas; Methods.

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Acronyms

CCAFS	The CGIAR Research Program on Climate Change, Agriculture and Food Security
CDM	Clean Development Mechanism
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community Of West African States
LDC	Least Developed Country
QCA	Qualitative Comparative Analysis
SADC	Southern African Development Community
UN	United Nations
UNFCCC	UN Framework Convention on Climate Change

Introduction

CCAFS vision is to be, with its key partners, the foremost global source of collaborative research that leads to effective strategies for tackling food insecurity in the face of climate change. One pathway for achieving this vision is to address policies and institutions for climate-resilient food systems, at the national level but also up through to the global level. Studies like the classic “Poverty and Famines: An Essay on Entitlement and Deprivation” of Amartya Sen (1981) have clearly indicated the importance of governance, institutions and politics for food security. In this working paper, I describe political factors that are likely to be important in shaping the governance of climate change adaptation and food systems, drawing on concepts and methods of comparative politics, as well as identifying research areas where CCAFS could make a meaningful contribution.

Comparative politics is emerging as an exciting new approach for the study of global environmental issues. As leading experts have recently stated, “Comparative environmental politics will likely constitute one of the leading edges of the next generation of research on global environmental politics and environmental studies” (Steinberg and VanDeveer, 2012).

Drawing on Hall (1997), I organize this working paper around three groups of politically salient factors identified in the comparative politics literature: institutions, interests and ideas. Such organization is important because it highlights important gaps in the existing climate change adaptation and food security literature which, similar to the conclusion of at least two other independent review of this topic (Biesbroek et al., 2013; Candel, 2014), tends towards a form of normative analysis that privileges institutions. For example, in comprehensive review of food security governance, Candel distinguishes an “optimist governance philosophy” from underrepresented “realist” and “pessimist” ones. The underlying assumption of the “optimist” approach is that governance is a problem that can be resolved through institutional reform:

if governance regimes were further integrated on multiple scales, more knowledge and information would be acquired and shared; and if all relevant stakeholders were able to engage in collective rational deliberations, [the optimist governance philosophy believes] it would ultimately be possible to overcome the complexity of food security and to

develop a holistic approach that would enable food insecurity to be addressed in the most effective way (Candel, 2014:12).

As Candel continues, "...the dominance of [the optimist] perspective has led to a rather narrow, normative, and simplistic view of governance within a large proportion of the food security community" (Candel, 2014:12).

While institutions clearly remain important, this working paper will argue that greater incorporation of interests and ideas into the analysis of climate change adaptation and food security governance promises to render CCAFS research more effective. While the Working Paper's emphasis is on domestic governance factors, because climate change adaptation and food security are matters of multilevel governance, I also consider how to better integrate international and domestic politics. Finally, the working paper offers a review of epistemological and methodological issues of comparative politics, recognizing that this method of inquiry may be novel in the area of climate change adaptation and food security governance research.

The paper closes by making five recommendations, all which harness its main insight—the importance of considering institutions, interests and ideas together—towards research into the governance of climate change adaptation and food security: the need (i) to identify new dimensions of institutional research, (ii) to conduct governance research beyond institutions, (iii) to embrace more rigorous comparative methods, (iv) to address the "dependent variable" problem in climate change adaptation research and (v) to come to grips with "good enough" climate governance.

Issues of Comparative Politics

Themes of Comparative Politics

Comparative politics is a major sub-discipline of political science. Important themes of comparative politics that still have underexplored links to climate change adaptation and food security include literature on the relationship between economic development and democratization in processes of modernization (Acemoglu and Robinson, 2012; Boix and Stokes, 2003; Epstein et al., 2006; Huntington, 1968; Hydén, 2007; Moore, 1993 [1966]; North, 1990; Przeworski and Limongi, 1997; Skocpol, 1979) as well as variation in the

relationship between the state, markets and society (Bates, 2005 [1981]; Boone, 2003; Kohli, 2004; Migdal, 1988; Polanyi, 2001 [1944]; Popkin, 1979; Rodrik, 2007; Scott, 1976; Woo-Cumings, 1999). As indicated earlier, insights of comparative politics are only beginning to enter the field of climate change adaptation and food security, largely under the banner of comparative environmental politics.

Comparative politics should be seen as a compliment to recent research into climate change politics that has focused on transnational, non-state actors and multilevel climate governance (Andonova et al., 2009; Bulkeley and Moser, 2007; Green, 2013; Keohane and Victor, 2011; Newell, 2006). Indeed, the sheer number of actors identified in multilevel research necessitates some separation of the wheat from the chaff, casual and non-causal factors, if we are to generate theory that will allow us to predict political behaviour and produce tractable policy recommendations. Are transnational actors politically salient in similar ways across emerging economies, transition economies and least developed countries (LDCs)? Are non-state actors more effective in driving climate change adaptation under democratic than authoritarian regimes? Do key political units involved in multilevel climate governance differ between East Asia and Latin America? Comparative politics helps us address such questions.

While comparative politics does not inherently privilege any particular unit of analysis, comparativists appreciate “the enduring importance of domestic politics and the nation-state in particular” (VanDeveer and Steinberg, 2013:154). Despite the importance of local and global/international political processes, the state remains an important contextual factor through which much salient political behaviour continues to be refracted. For example, while local-level politics in rural Africa are often considered to be beyond the reach of the state (Herbst, 2000), empirical comparative research demonstrates that the state has a definite institutional presence that shapes subnational politics and local policy implementation in broadly predictable ways (Boone, 2003; 2013a; b; 2014). Similarly, despite processes of neoliberal globalization, the state is still important in shaping economic conditions within its boundaries (Khan and Christiansen, 2011; Schmidt, 2009).

This is not to say that the state is not a concept without difficulties. Migdal (2009), for example, argues that since the rush of state creation since decolonization post-World War II, the standard European template of what constitutes a state has needed to become more pliable and elastic to capture the variety of state forms now found around the world. Thus while local

and global factors are salient, the attention that comparativists pay to the state indicates that this political unit is still very important for understanding politics on the ground—such as the governance of climate change adaptation and food security.

Epistemological and Methodological Issues

Comparative politics represents not only a domain of research but also an epistemological posture and methodological approach. Indeed, one reason for rising interest in the application of comparative politics towards climate change politics has been recent innovations in comparative political methodology and philosophy of science that have expanded its scope application (Engeli and Allison, 2014a; Flyvbjerg, 2006; George and Bennett, 2005; Lichbach, 2009; Mahoney, 2007; 2008; 2010; Marx et al., 2014; Ragin, 1987). Most important has been new thinking about *theory testing* in *small-N* and *medium-N* studies, in a departure from King, Keohane and Verba (1994) who privileged quantitative methods—particularly regression analysis—as the most appropriate model for qualitative research (Mahoney, 2010). Many of the governance issues of interest to those researching climate change adaptation and food security are not easily quantifiable, which makes innovations in *small-N* and *medium-N* research methods especially important. Such approaches are helpful in new policy areas where there is often limited data available for regression analysis:

“Policymakers and others working in the public interest want to learn about the art of the possible, and the risk of the unthinkable, not just the trend line of the probable” (Steinberg, 2007: 185).

Epistemologically, comparativists typically—but not always—consider themselves part of the positivist tradition in the social sciences in that they explicitly seek to tie observations “to more general ideas about politics” (Lichbach and Zuckerman, 1997:4).¹ The complexity of political processes under examination, however, leads comparativists to be modest about such causal claims. As Evans puts it, “The desire to predict is part of social science, not because we are positivists but because social scientists share with everyone else the desire to know what is likely to happen to them and how they might be able to improve prospective outcomes” (Kohli et al., 1995: 3). Better theory allows researchers to anticipate political behaviour and make more effective and politically feasible policy recommendations.

¹ See Benton and Craib (2010) at pages 13-49 for discussion about positivism in the social sciences.

However, it should not be construed that this positivist posture means comparativists view the political world as a complex set of billiard balls. Humans are thinking beings and many of the factors in which comparativists are interested are socially constructed. Consequently, political scientists have tended to take the epistemological and methodological challenges of positivism quite seriously (Bernstein et al., 2000; Daniel and Smith, 2010; Grynaviski, 2013; Jackson, 2011; Pouliot, 2007; Wendt, 1998). It is beyond the scope of this working paper to delve into these fundamental epistemological debates—such as that between positivist and non-positivist social science—which has been discussed elsewhere (Cohen and Wartofsky, 2010; Lichbach, 2009; Yanow, 2014). However, a significant part of this debate appears to be with regard to the possibility of ideational factors (such as ideas, concepts and culture) producing causal effects—an issue to which I return to below in discussion of “ideas”.

For the moment, it is important to justify this foray into these epistemological debates. Arguably, one reason that comparative politics may appear novel for governance research into issues of climate change adaptation and food security is because non-positivist social science has historically played a larger role in the field of environmental studies. With its emphasis on interdisciplinarity, environmental studies, has been more open to non-positivist approaches than in other issue areas such as economic development and international security. My concern is that the non-positivist social science, in its rejection of the possibility of causal inference, risks relegating research into climate change adaptation and food security to that of description and interpretation. While clearly important, description and interpretation are not in themselves sufficient for answering the broader governance questions related to climate change adaptation and food security. Given recent advances in philosophy of science and comparative methods, the time is now ripe to become reacquainted with broader approaches to comparative politics.

How can comparative politics allow researchers to better anticipate political behaviour and make more effective policy recommendations? The key here is comparative analysis, as Engeli and Allison have recently stated:

Comparative analysis encourages moving beyond the particularities of each case and identifying patterns and regularity across cases, settings and time periods. Comparative designs force the researcher not to stop the analysis at particularistic explanations drawn from a single context,

but to test whether the answers to research questions hold true for a larger number of cases and contexts (Engeli and Allison, 2014b: 2)

Comparison is one of the basic scientific methods of discovering empirical relationships among variables in an effort to establish general propositions about causal processes linking an independent variable (or independent variables) to an outcome. During his investigations of gravity, for example, Galileo is remembered for comparing the speed of two balls dropped from the top of the Leaning Tower of Pisa—not just one. Systematic comparison allows scholars to respond to questions like: Which variables are really important? When? And under what conditions? In other words, comparison allows us to better test theory.

In an earlier generation of political science, embodied in King, Keohane and Verba (1994), testing of theories was believed the exclusive domain of *large-N* quantitative research. Only such research, it was presumed, allowed causal claims to be tested and thus move research from the realm of description to explanation. The best that *small-N* (and, at the time, relatively underdeveloped *medium-N*) approaches could hope for, was descriptive interpretation and hypothesis generation.

One of the recent, and controversial, innovations in comparative methods has been the identification of methods for using *small-N* and *medium-N* analyses for purposes of causal inference. The main difference between *large-N* statistical analyses and *small-to-medium-N* comparative studies lies in sensitivity to negative cases and falsifiability (Mahoney 2008). While these methodological issues are still debated, a single negative case in *large-N* research has a much smaller impact on the falsifiability of a theory than it does in *small-to-medium-N* research, where even one negative case is considered meaningful. This is because causality in *large-N* research is conceived in terms of likelihoods and probabilities while in *small-to-medium-N* research causality is conceived in logical terms of necessary and/or sufficient conditions. However, in order to test theories using *small-to-medium-N* studies, the selection of cases is arguably more important than for *large-N* studies. To avoid bias, comparativists need to pay close attention to research design in order to ensure that the cases they compare capture variation in terms of independent and dependent variables of interest (Geddes, 1990; Meckstroth, 1975; van de Heijden, 2014).

An example of the application of *small-to-medium-N* approaches to theory testing is Skocpol's (1979) *States and Social Revolutions* (George and Bennett, 2005:127-150; Mahoney, 2010:129): Here Skocpol provides evidence to question the standard Marxist

theory that vanguard movements have been important causes of social revolutions. She does so by demonstrating through process tracing analyses across France, Russia, and China that vanguard movements emerged on the political scene only *after* major revolts have occurred. Given this, Skocpol concludes vanguard movements are not critical causes of the social revolutions in these three countries.

It is beyond the scope of this working paper to go further into the details about these epistemological and methodological debates. The upshot is that, while still controversial, comparativists can now legitimately conduct causal research using *small-N* approaches such as process tracing (Blatter and Haverland, 2014; Flyvbjerg, 2006; Mahoney, 2007) and *medium-N* approaches including qualitative comparative analysis (QCA) for (Engeli et al., 2014; Marx et al., 2014). This is however not a critique of quantitative methods and *large-N* studies. Such approaches have long demonstrated themselves to offer important predictive power (Breunig and Ahlquist, 2014). But it's handy to have an expanded toolkit, especially for research into the governance of climate change adaptation and food security where data that would lend themselves to quantitative research are largely lacking.

The brief review above of epistemological and methodological issues of comparative politics sheds new light on existing research into the governance of climate change adaptation and food security. While there are important recent exceptions, too much of the existing research into climate change adaptation and food security has been comprised of unstructured, single case-studies (Adger, 2003; Baiphethi and Jacobs, 2009; Brouwer et al., 2007; Conway and Schipper, 2011; De Silva et al., 2007; Deressa et al., 2009; Di Falco et al., 2011; Engle and Lemos, 2010; Ford et al., 2010; Habib-Mintz, 2010; Kosamu, 2013; Nelson and Stathers, 2009; Nielsen and Reenberg, 2010; Paavola, 2008; Vogel, 2009). While mindful of the benefits of single case-studies for producing important descriptive knowledge and generating hypotheses (Ford et al., 2010; McKeown, 1999) as well as the testing of universal theories (Flyvbjerg, 2006),² they lack comparisons necessary for addressing larger issues of causality

² As Flyvbjerg (2006) observes, Galileo's rejection of Aristotle's law of gravity "did not involve a large random sample of trials of objects falling from a wide range of randomly selected heights under varying wind conditions and so on. Rather, it was a matter of a single experiment, that is, a case study, if any experiment was conducted at all" (p. 255). A single case-study is appropriate for confirming or refuting universal theories such as the law of gravity: if such a theory does not work in a single case, it requires reformulation. Political theories however do not often have such universal claims.

and theory generation discussed above. In my review of the literature, I have found only a very limited number of studies of climate change adaptation and food security in the developing world, which have used comparative methods (Bryan et al., 2009; Dupuis and Knoepfel, 2013; Moseley et al., 2010; Purdon, 2013; Purdon, 2014a; Stringer et al., 2009; Zezza and Tasciotti, 2010). The next generation of research into climate change adaptation and food security should strive to more explicitly deploy comparative methods in order to demonstrate relationships between causal factors—including institutions, interests and ideas—and results such as policy change and outcomes.

The Dependent Variable Problem in Adaptation Research

Another important and related methodological challenge for research into climate change adaptation and food security is clarity about the phenomenon that is being measured, its scope and boundaries—referred to as the “dependent variable” in political science circles. For climate change adaptation, there is hardly consensus about what the outcome of adaptation policy should be let alone how to measure it (Dupuis and Biesbroek, 2013; Ford et al., 2010; Howlett and Cashore, 2009). Consequently, as Dupuis and Biesbroeck (2013) demonstrate, existing comparative research into climate change adaptation has been largely unsuccessful in demonstrating the necessary policy changes that will produce outcomes likely to reduce climate impacts and promote adaptation. More specifically, they raise concerns about (i) the indistinctiveness of “adaptation” as a theoretical concept, (ii) different interpretations of adaptation in the context of policymaking and (iii) difficulties in operationalizing the concept of adaptation for policymaking (p. 1479-1481).

What constitutes climate change adaptation has important real-world implications. One concern is that what is currently being promoted as climate change adaptation in the developing world is simply responding to existing climate variability without detailed, location-specific projections of expected future changes (Ayers and Dodman, 2010; Ayers and Forsyth, 2009). By promoting adaptation to a predicted future climate that turns out to be incorrect, such interventions may actually constitute maladaptation. More thinking about what constitutes adaptation is a clear priority for research moving forward. For example, at one point can it be construed that adaptation in a specific location is not an option and that migration to a safer place is necessary (McLeman and Smit, 2006). These are tough questions that require thoughtful answers.

A controversial issue related to climate change adaptation is environmental security, particularly the relationship between environmental scarcity and violent conflict. If genuinely the result of environmental scarcity precipitated by climate change, such conflict might be seen as constituting adaptation failure. Environmental scarcity and conflict was first explored explicitly by Homer-Dixon (1999), though has also been the subject of various critiques urging the need to focus on other socio-economic and political factors (Forsyth and Schomerus, 2013; Raleigh, 2010; Raleigh and Urdal, 2007) as well as problematizing the securitization of environmental issues itself (Deudney, 1990; Graeger, 1996; Levy, 1995; Waever, 1995). Arguably, research into climate change adaptation would be improved by examining how conflict is treated in the existing political science literature (for example, Dixon, 2009; Fearon and Laitin, 2000; Lacina, 2006; Mello, 2010).

Finally, I would note that the dependent variable problem is also a challenge for climate policy broadly and not necessarily one alone of adaptation and food security governance research. Much of the current literature on international climate change politics has gauged effectiveness in terms of policy *output* rather than climate policy *outcomes* such as emission reduction trends (Bättig and Bernauer, 2009: 284). This is not simply a matter of the challenges of data acquisition in the developing world but indicative of broader research trends. Even recent reviews of climate policy in the developed world have found few studies of policy effectiveness as well as a general lack of cross-country comparative research (Haug et al., 2010; Rykkja et al., 2014).

To summarize, greater clarity about the dependent variable in climate change adaptation and food security governance will allow researchers to better understand the causal factors at play. It is to these causal factors—organized as institutions, interests and ideas—to which we now turn. The initial focus is at the domestic level, though in a separate section I discuss how thinking about domestic and international factors might be better integrated.

Domestic Political Factors for Climate Change

Adaptation and Food Security

Institutions

I begin this review with institutions because they have received the most attention in the climate change adaptation and food security literature. Institution-oriented approaches to comparative politics “generally locate the primary causal factors behind economic policy or performance in the organizational structures of the political economy” (Hall, 1997: 180). Institutions produce a distinctive combination of sanctions and incentives that shape patterns of political influence and organization and lead political and economic actors toward some kinds of behaviour and away from others. North (1990) has famously defined institutions as humanly devised constraints that shape human action while March and Olsen (1989) have highlighted the important role that institutions play in actually constituting what political actors believe is appropriate behaviour.

Yet institutions are not uniform around the world. In industrialized countries, where bureaucracy often bears a resemblance to the Weberian ideal type, the role played by formal institutions largely conforms to the description above. In the developing world, where CCAFS seeks to incite change, the role of formal institutions may diverge quite significantly and systematically from these expectations (Sangmpam, 2007). This does not mean that the state is absent, or that informality or anarchy rules, as I discussed earlier (see Boone, 2003; 2013a; b; 2014). As they are relatively weak when considered relative to their counterparts in developed countries, formal institutions may work differently in developing countries than Western analysts might expect.

At the same time, informal institutions are often considered to play a larger role in the developing world. Helmke and Levitsky (2004) define informal institutions as “socially shared rules, usually unwritten, that are created, communicated, and enforced outside of officially sanctioned channels” (p.727). Such informal institutions may remain opaque to outside observers, yet understanding their dynamics will be crucial for the design of successful governance interventions for climate change adaptation and food security.

In discussion of informal institutions in the developing world, there is often an association with personalistic patron-client relationships (Bratton and van de Walle, 1994;

Eisenstadt and Roniger, 1984; Günes-Ayata, 1994). Neopatrimonialism is ostensibly an asymmetrical relation between someone with power and another in need of the protection or favour that such power affords. In an early article, Gellner (1977) defined it thus:

Patronage is unsymmetrical, involving inequality of power; it tends to form an extended system; to be long-term, or at least not restricted to a single isolated transaction; to possess a distinctive ethos; and, whilst not always illegal or immoral, to stand outside the officially proclaimed formal morality of the society in question (p. 4).

Patron-client relations can be problematic when political support from clients is granted to patrons regardless of their broader political performance. This increases the ability of politicians to gain support in exchange for rewarding targeted groups with jobs and other private goods (Srivastava and Larizza, 2012: 11; also see Acemoglu & Robinson, 2008). Yet there is increasing recognition that neopatrimonialism has been used too broadly and unreflectively in diagnoses of governance challenges in the developing world, and critical reflection is warranted (see Mkandawire, 2013).

Another related issue is whether informal institutions should be themselves formalized. One school of thought cautions against legal formalization. For example, many have argued that nascent land markets in sub-Saharan Africa should be left in the informal sector because their formal privatization would only favour elites and facilitate land grabs (Lastarria-Cornhiel, 1997; Platteau, 1996; Toulmin et al., 2002). With regard to carbon finance afforestation initiatives, Unruh (2008) has urged that “the poor often need to be protected from governments, and yet governments will be responsible for law-making, guaranteeing rights, and titling programs” (p.72). However, another school highlights the benefits that such formalization can bring. There is evidence that formal land markets lead to higher levels of investment and productivity and reduce the need to defend land rights, though claims about improved access to credit appear highly questionable (Deininger and Feder, 2009). Deininger and Feder conclude that “formalization of land rights should not be viewed as a panacea and that interventions should be decided only after a careful diagnosis of the policy, social, and governance environment” (p.257)—in other words through analysis that, amongst other approaches, draws on methods and conceptual tools of comparative politics.

One promising compromise in this debate is formal recognition of customary property rights. Such is the case in Uganda where land tenure reform has moved along an arc towards

greater recognition of customary land tenure, including customary land ownership and the curtailment of the discretionary powers of land-owners that grew out of Uganda's unique *mailo* land tenure system (Coldham, 2000; Green, 2006). In contrast to much of the land tenure systems of sub-Saharan Africa, the Constitution of Uganda states that "Land in Uganda belongs to the citizens of Uganda and shall vest in them in accordance with the land tenure systems provided for in this Constitution" (Article 237(1)). As legal experts have commented, "Ugandans have some of the most extensive legal protections for their land claims in Africa" (Knight et al., 2011: 18).

But the real question for climate change adaptation and food security is what kind of institutions, formal and informal, offer the most effective governance arrangements. In this regard, community-based adaptation is increasingly being seen as an appropriate response to anticipated climate change (Ayers and Forsyth, 2009; Forsyth, 2013). Much of this is due to the work of Elinor Ostrom, who convincingly demonstrated that effective institutional solutions for the management of common property resources are prevalent (Ostrom, 1990; Ostrom et al., 2002; Poteete et al., 2010). In a segue with our earlier discussion about formal/informal, it was arguably the unwritten, "informal" nature of such common property institutions is why Hardin (1968) and others overlooked them in the past. Drawing upon empirical case material, Ostrom identified eight "design principles" that would improve the effectiveness and sustainability of common property systems (Ostrom, 1990: 90).³ One research avenue might be to consider the degree to which existing institutions for community-based adaptation share these design principles. It should be noted that Ostrom's research has also generated considerable debate, notably the extent to which its foundations in rational choice theory can be generalized (Forsyth and Johnson, In Press).

³ These include: 1) Clearly defined boundaries (effective exclusion of external un-entitled parties); 2) Rules regarding the appropriation and provision of common resources that are adapted to local conditions; 3) Collective-choice arrangements that allow individuals affected to participate in the decision-making process; 4) Effective monitoring by monitors who are part of or accountable to the community of resource users; 5) A scale of graduated sanctions for resource users who violate community rules; 6) Mechanisms of conflict resolution that are cheap and of easy access; 7) Self-determination of the community is recognized by higher-level authorities; and 8) In the case of larger common-pool resources, organization in the form of multiple layers of nested enterprises, with small local common-pool resources at the base level.

But collective property institutions are not only type of institution with bearing on climate change adaptation and food security. Activities such as agriculture and tree-crop farming are often better governed as individual private goods because the costs of property rights enforcement is low relative to the benefits of private ownership (Otsuka and Place, 2001: 18). There are also convincing arguments that increasing population triggers innovations such as more individualized—yet informal—land tenure in order to provide security for land improvements (Boserup, 1965; Kabubo-Mariara, 2007). Evidence of such informal individual land rights and land markets is ubiquitous in, for example, sub-Saharan Africa (Besley, 1995; Chimhowu and Woodhouse, 2006; Daley, 2005; Platteau, 1996). There is also the thorny issue of what constitutes a “community” in the first place (see Agrawal and Gibson, 1999).

Clearly, a challenge is to identify where community-based adaptation is appropriate and where more individualized approaches are better suited. While there are many cases of privatization leading to the divestiture of the common property resources of the rural poor (Polanyi, 2001 [1944]), the enthusiasm for common property resources too often lends itself to romantic notions of communal life in peasant societies (Chimhowu and Woodhouse, 2006; Popkin, 1979: 1-31). One pertinent example comes from the experience of ujamaa villagization in 1970s Tanzania (Hydén, 1980; McHenry, 1979; Schneider, 2007). As Hydén observes:

Ujamaa was a principle traditionally practiced only within each household...It did not address itself to the mutual responsibilities and rights of individual households in a given local community. For these, the rural Tanzanians use the concept of ujima. As Mushi notes in his article, ‘ujima refers to the habitual practice of co-operation among villagers in certain peak seasons (cultivating, planting, harvesting, etc.) or in cases of emergency where someone needs to finish a certain job in a day or two with the help of his neighbours and relatives, instead of weeks or months of doing it alone’ (Mushi, 1971). This function was communal in the sense of implying mutual aid and reciprocity, but not in the sense of communal ownership. Those who assisted their neighbours did not expect a share in their harvest, only some entertainment at the completion of the task...What [President] Nyerere was asking of the peasants, however, was to go beyond ujima and adopt ujamaa as the guiding principle of life and work,

not only within the household but also in the relations between households in their community (Hydén, 1980: 99).

Recent research has demonstrated the long-term effects of ujamaa villagization in Tanzania. Osafo-Kwaako (2013) demonstrate that districts with a high fraction of the population living in former Ujamaa villages currently possess higher levels of educational attainment as well as greater political participation and support for democracy—surly positive results—but significant lower-levels of household consumption.

While the discussion up to this point has focused on climate change adaptation, better understanding of domestic institutions can also help design carbon finance instruments in the agricultural sector that are able to better engage with smallholder farmers and generate synergies between mitigation and adaptation initiatives (see Klein et al., 2005). In the rural land-use sector, the predominant mitigation opportunities are restoration of degraded soils, manure management and agroforestry (Seeberg-Elverfeldt and Gordes, 2013). Yet the modest amount of carbon accumulated per hectare through such projects, in conjunction with the small size of typical landholdings in rural parts of the developing world, call for innovative thinking in order to secure successful implementation. Antle and Diagona (2003) show that even where potential investments increase both carbon sequestration and individual farmer yields over time, farmers may not adopt them because of credit and investment constraints.

To summarize, institutions are clearly important for the governance of climate change adaptation and food security. While formal institutions are often easier to study, greater attention needs to be given to informal institutions. Similarly, while institutions for community-based adaptation are promising, it is important to consider other institutional forms as well. However, it is also necessary to look beyond institutions to other political and economic factors that shape governance. It is to these that we now turn.

Interests

As used in the comparative politics literature, interests refer to what Hall defines as the “real, material interests of the principal actors, whether conceived as individuals or groups” (Hall, 1997: 176). For climate change adaptation and food security policy, the material interests at play will typically have to do with variation in costs and benefits of various policy actions across groups of actors, tensions between political and economic objectives, and trade-offs between short and long-term effects.

The relationship between groups of actors is complex, often involving competing political factions rooted in societal interests that may remain opaque to outside observers. For one thing, there are many different types of political groups and associations in the developing world—as indicated in our earlier discussion of informal institutions and patron-client relations. As the state is often unevenly institutionalized, it is useful to discuss interests amongst the state and its subagencies, market, and society (Migdal, 1988; 2009). Society itself can be organized in between political groups comprised of fixed characteristics such as when such as class, religion or ethnicity or variable ones such as political ideology. With such complexity, a first step to understanding interests is to be able to describe how power relations between groups are structured.

Fortunately, in this regard there has been significant new thinking in the comparative politics literature. Khan (2010) describes interest relations between groups through the concept of *political settlements*—“a combination of power and institutions that is mutually compatible and also sustainable in terms of economic and political viability” (p.4). Kohli (2004) uses the term *state power for development* to describe variation in the technical characteristics of state institutions and the manner in which states craft their relations with social classes (p.21). As both these authors show in their work, there is enormous variation in these political economy relationships across countries: consider the dense, multiple networks of patron-client relations in India in comparison to the privileged position of the state in South Korea. Where institutions are weak and political order is fragile, such as in LDCs, the analytic task is further complicated (Boone, 2003; 2007; 2013b; 2014; Ribot, 2004).

In all settings, the interests at play in climate change politics can be more complex than much of the climate change adaptation and food security literature tends to assume. This is because climate change is but one of many factors that affect the aggregate interests of any state, societal or market actor. While developing countries arguably have the most at stake in global climate change politics given their relative vulnerability and lower resilience, it should not be assumed that political actors in developing countries would automatically prioritize climate action or see participation in international climate change regimes as in their best interests. For example, Resnick et al. (2012) criticize recent “Green Growth” initiatives in the developing world, observing that “when trying to scale up to a national development strategy, Green Growth poses more trade-offs than is readily acknowledged” (p.216). Others have focused on the in-country distribution of costs and gains of implementing climate change

mitigation, arguing for more systematic accounting of the rights, needs, and political weight of potential losers (Chhatre and Agrawal, 2009; Ribot et al., 1996).

As a relatively new issue, studies focused on the interests at play in climate change adaptation are rare. In an important recent study, Barrett (2014) demonstrates that the subnational distribution of adaptation funds in Malawi is driven by physical vulnerability but inversely related to socioeconomic vulnerability. At the same time, patron-client relations were *not* a salient factor as the government leadership had recently shifted towards a more populist strategy. However, the most important factor explaining subnational distribution of adaptation funds in Malawi was donor utility and district absorptive capacity. As Barrett concludes, “[a]daptation finance distribution arrives in districts with sufficient capacity to use assistance productively and where aid networks are established. The poorest, most marginalized, and climate vulnerable districts receive the least adaptation finance within Malawi” (p.131). In another important recent study, Barrett (Under Review) demonstrates that devolved rather than decentralized local-level political institutions better ensure that local needs remain the priority of adaptation finance in Kenya. Barrett’s contribution is particularly important in demonstrating that the interests of powerful local actors and related patron-client relations, too readily associated with sub-Saharan Africa (Mkandawire, 2013), can be tempered by institutional changes.

Given the lack of studies explicitly focused on interests involved in climate change policy and governance, one strategy to rapidly gain understanding is to review research that has already tackled interests for related issues. For example, the opening of this working paper drew attention to Sen’s (1981) path breaking work on the political economy of famine. There exist a number of other studies situated in the developing world that have demonstrated that government interest and ethno-regional patronage drive resource allocations in food aid (Clay et al., 1999; Jayne et al., 2001; Jayne et al., 2003), natural disaster response (Besley and Burgess, 2002; Francken et al., 2012; Morris and Wodon, 2003; Takasaki, 2011) and public school funding (Reinikka and Svensson, 2004). This appears to be relevant but largely untapped source of information that could form the basis of more generalizable explanations of the interests at play in climate change adaptation and food security.

Arguably, one reason that interests have not received sufficient attention in the climate politics literature is that many have assumed that addressing climate change would be a priority interest for developing countries. In particular, most academic research into climate

change politics has been underpinned by neoliberal institutionalism—one the dominant strands of international relations theory. In a nutshell, neoliberal institutionalism has emphasized the importance of international institutions to promote cooperation between states on issues of global importance, such as climate change (see Keohane, 1984 for a classic statement on the neoliberal institutionalism). Early proponents of neoliberal institutionalism recognized that internationalization affects policies and institutions differently from country to country because domestic political institutions can block and refract its effects (Milner and Keohane, 1996:5). In the climate change arena, until of late the focus has been research into the design of international institutions such as the UNFCCC, Kyoto Protocol and associated components. The most recent neoliberal institutional thinking has been to urge researchers to look beyond the formal UN climate change regime to the greater “regime complex” that includes ancillary international institutions that have bearing on climate change (Keohane and Victor, 2011). However, research into comparative climate change politics is relatively new.

Important for our current purposes, one weakness of neoliberal institutional theory is that it leads researchers to assume that states will eventually find it in their interest to cooperate to reduce emissions. All we need to do is create appropriate institutions to permit them to realize their common interest. Yet in so assuming, neoliberal institutionalism is vulnerable to the critique that it grants international political processes greater causal weight than domestic politics in a state’s determination of what its interests are (Sterling-Folker, 1997). One example is the theory that as countries become more economically developed and capable of taking action to mitigate (and adapt) to climate change, their interest in doing so will also emerge (Victor 2011: 11–12). But are capabilities and interests really correlated? Researchers are only beginning to really sink their teeth into this issue. Contra the expectations of neoliberal institutionalism, a recent investigation by Ward et al. (2014) suggests that rising capacity amongst authoritarian regimes will actually result in worsening environmental outcomes.

In concluding this section on interests, it would be prudent for those concerned about climate change adaptation and food security governance not to expect a radical transformation of existing power structures for climate justice. Rather, those interested in these issues should consider the need to calibrate their expectations in light of entrenched political interests, such as the notion of “good enough governance” (Grindle, 2004; Grindle, 2007; Srivastava and

Larizza, 2012)—an issue to which I return below amongst the recommendations emanating from this working paper.

Ideas

The final political factor to which we turn is ideas. As emphasized by Hall (1997), “[i]deas-oriented approaches to political economy have real value in that they capture dimensions of human interaction normally lost in other perspectives” (p.185). Arguably, ideational approaches to political science currently represent the cutting edge of the discipline. The logic here is that, because politics is a social process, ideas are necessarily prior to institutions and interests (see Adler, 1997; Wendt, 1992; Yee, 1996). The political saliency of institutions and interests depends on ideas held by political actors about them in the first place.

As I touched on earlier in the discussion of the epistemology of comparative politics, recognition of the causal effect of ideas is, arguably, one of the issues that distinguishes positivist from non-positivist social science. For example, a recent survey of non-positivist methods asserts that positivists “[stipulate] the definition of concepts as a starting point” whereas non-positivists adopt methods “allowing concepts to emerge from the field” (Yanow, 2014: 143-144). Certainly, some positivists are guilty of borrowing concepts unreflectively. But there has also been considerable research effort to describe emerging ideas and operationalize them towards the explanation of political phenomenon—including climate change (Leiserowitz et al., 2013). Second, though related, is the non-positivist claim that political concepts and social processes are so location specific—that “what is being learned are the specific, local meanings” (Yanow, 2014: 145)—that they cannot be generalized beyond the immediate case at hand. In other words, inference is not possible; instead, we should be satisfied with deep, cultural understanding of the politics of a certain place. But this localized notion of ideas tends to assume that ideas are subjectively bound.

One of the more important recent insights of political science is that, *in addition to being subjective, ideas can come to have existence independent of the human beings who conceived them*—“that ‘ideas’ have structural characteristics” (Adler, 1997: 325). Ideas can and do become embodied in physical structures, media, actions as well as, importantly, in other human beings. The latest thinking on this matter goes one step further by focusing not on mere ideas but on practices, behavioural patterns that political actors often adopt

unconsciously as a part of tradition or routine (Pouliot, 2008). Consequently, political scientists maintain that, as objective factors in the real world, it is possible for ideas to produce causal effects.

Greater attention to the role of ideas in the governance of climate change adaptation and food security is necessary. Even more so than in other areas of international politics, ideas would be expected to play an important role in climate change politics. As it has for other environmental issues (Haas, 1992), science would be expected to be crucial in climate change politics by informing decision-makers and the public about the issues at stake. Particularly in the industrialized world, public opinion polling has shed considerable light onto how climate change is perceived by broad segments of the electorate (Brulle et al., 2012; Lachapelle et al., 2012; Leiserowitz, 2007). Yet the conclusion emerging out of the political science literature is that climate science is insufficient on its own for driving change because of the different ways that scientific ideas become politicized as well as the material interests at play (Grundmann, 2007; Miller, 2004; Purdon, 2014b; Victor, 2011).

One promising strategy moving forward is to improve understanding of the interaction between ideas about climate science and other, competing ideas that have impact on the domestic side of international climate politics. The most obvious set of ideas competing with climate science are prevailing economic ideas about how the economy works and how it should be manipulated to achieve traditional economic goals such as growth and reduced inequality (Darden, 2009; Hall, 1989). As explained by Darden, political actors draw in part on their stock of ideas about the causal relationship between economic phenomena—whether these ideas are objectively true or not—when determining economic policy (Darden, 2009: 10). Differences in economic ideas, tensions between economic and political beliefs, or tensions between short and long run visions of the future might shape the motivations of state agents and the bureaucracy. These differences might mean that the same type of climate policy that works in a country with a strong affinity for market-based policy may not work in a country with more socialist or dirigiste traditions.

Legitimacy can also be important factors in the making and implementation of climate policy, as it is in economic policy (Lipset, 1959; Taylor, 2002; Weede, 1996). While legitimacy has been a considerable topic of research into global environmental politics (Bernstein, 2005), it has only recently being considered at the domestic and subnational level (Brown and Lassoie, 2010). International ideas of climate justice politics (Harris and Symons,

2010; Ikeme, 2003; Maltais, 2008) as well as moral politics (Lumsdaine, 1993), can also be assumed to have an effect on domestic climate change, whether in terms of policy implementation or in terms of contribution of financial resources for international climate efforts. But moral politics are generally considered to be largely insufficient for mobilizing the large resource transfers implied in climate change adaptation and food security (Morgenthau, 1962; Purdon, 2014b).

A second research strategy is to examine the relationship between power and ideas. As Bradford explains, “[n]ew ideas are a ‘necessary’ condition for launching policy innovation, but they are not ‘sufficient’ in consolidating change... Rather, in order for new ideas to progress they must ‘work on’ interests to realign the policy goals of collective actors, and they must ‘work through’ organizations to transform policy-making routines and state capacities” (Bradford, 1999: 18). We should thus expect some interaction between ideas and the power and interests held by particular groups in a given political context. An important research question might be, at what point does the power of various actors rather than their ideas determine governance outcomes for climate change adaptation and food security.

Overall, there is a feeling that ideational issues have not been given the attention they deserve in the governance of climate change adaptation and food security, nor in the comparative environmental politics more generally. Apart from a handful of studies (Purdon, 2012; Stringer et al., 2009), little research into climate policy effectiveness has operationalized ideational factors at the domestic level. While carrying out research into ideas is difficult and often does not lend itself to quantitative analysis, it promises to shed light on important governance issues.

Integrating International and Domestic Politics

Comparative politics should not be considered to focus exclusively at the domestic political level, for which reason it is also important to explore the relationship between domestic and international politics and implications for multilevel governance. Indeed, comparative politics is increasingly being considered in an integrated manner with that other important sub-discipline of political science, international relations, and embraced discussion

of the relationship between international and political factors (Cerny, 1995; Gourevitch, 1978; Putnam, 1988);

Here it is important to recognize that the community of scholars concerned with international political processes surrounding climate change has expanded from a rather narrow focus on the UN climate regime to consider other international and transnational actors and political factors (Bulkeley and Moser, 2007; Clapp and Helleiner, 2012; Keohane and Victor, 2011; Newell, 2006). Vulnerability to climate change and food insecurity will undoubtedly be linked to domestic political and economic factors, but also issues of international political economy. Three examples of the important role of international politics for climate change adaptation and food security are provided below.

First is the debate about the best strategy to leverage the funds necessary for international adaptation (Michaelowa, 2012). Before delving into the politics, I would emphasize that I agree that, in the final analysis, both the “moral positions adopted by the North and South reach the same conclusion: greater burden for climate protection should be borne by the North, and North–South transfer of resources should be used to facilitate climate protection and adaptation in the South” (Ikeme, 2003: 203; also see Barrett, 2012; Gardiner, 2004). Yet despite the moral appropriateness of such arguments, there are political constraints which make the large international resource transfers difficult (Purdon, 2014b). My own research suggests that these constraints impose themselves regardless of the international institutional form adopted—climate funds or carbon markets. Despite appeals for climate justice, international resource made available for adaptation have lagged significantly behind those for mitigation under both institutional forms—at under 20% of total climate finance leveraged (*Ibid.*: 320). Arguably, criticisms of the carbon market approach are misplaced: they have erroneously attributed low levels of adaptation financing to the type of institutional form adopted (the carbon market) rather than more fundamental political interests. The most appropriate strategy going forward is to advocate both strategies to leverage international resources for climate change adaptation as both carbon markets and climate funds each have their own specific advantages and disadvantages,

A second example involves the international politics of food security. Historical and on-going food insecurity in LDCs is arguably linked to unequal power relations in international political economy, which will very likely be exacerbated under climate change. Clapp (2009), for example discusses a number of issues of international political economy

that, in addition to global trends in food supply and demand, contributed to the 2008 world food crisis. First, was the depreciation of the US dollar during the early 2000s—the US dollar generally lost value in the years following the terrorist attacks of 2001. Through a complex and poorly understood process, US dollar depreciation is related to a rise in nominal prices for global agriculture commodities. This relationship is most likely due to (i) the fact that global agriculture commodities were themselves priced in a currency whose value had suddenly fallen as well as (ii) a tendency amongst global investors to pull their resources out of US currency markets when the US dollar is found depreciating and put them into speculative commodity markets, including agricultural commodities. A second issue at play in the 2008 world food crisis was trade restrictions on agricultural exports by a number of developing countries as well as rising global oil prices. Finally, Clapp argues that the 2008 world food crisis was especially harsh because the international trade regime had already undermined food security in the developing world, particularly LDCs, by maintaining a system of agricultural subsidies and trade restrictions skewed to benefit the global North.

A final example that highlights the role of international politics for the governance of climate change adaptation and food security concerns the rise of emerging economies, particularly China, and their entrance into the international development arena (Goldstein et al., 2009; Taylor, 2009; Terhalle and Depledge, 2013). While debatable, international aid to LDCs provided by emerging economies has not been strongly associated with good governance principles and, in many ways, resembles trade more than aid. For example, China has asserted that the promotion of good governance would infringe on the political sovereignty of recipient countries (Bräutigam, 2011; Wang et al., 2014). How important will Western efforts towards good governance be if these principles are not embraced by all salient development partners? In other words, when is governance for climate change adaptation and food security “good enough” (Grindle, 2004; Grindle, 2007; Srivastava and Larizza, 2012)?

In concluding this section, I would recall our brief discussion of neoliberal institutionalism. While renewed efforts to integrate domestic politics into neoliberal institutionalism as they regard climate change politics are worthwhile, it would be noted that there are alternative theories of international climate change politics that leave more space for domestic politics, including classic liberalism and neoclassical realism (Andonova, 2008; Hochstetler and Viola, 2012; Purdon, 2014b). A promising next step would be to rigorously

compare the domestic politics surrounding climate change adaptation and food security across a number of countries in light of competing theories of international climate change politics.

Catalyzing Governance Research at CCAFS

The review above suggests a number of areas where CCAFS should focus its energies to move forward on issues of climate change adaptation and food security governance. The main message is that the analytical concepts as well as methodological approaches of comparative politics offer a promising research strategy moving forward. In this section, I distil from the above analysis, five recommendations for the CGIAR community to consider.

New Dimensions in Institutional Research

As we have seen, institutions are key governance factors yet their treatment in the literature on climate change adaptation and food security has been limited. Our above review has identified two immediate research topics. First, CCAFS should seek to determine conditions where formal or informal institutions are better for driving positive change. This debate really hinges on whether the formalization of informal institutions, such as land tenure, creates more benefits than it generates problems for the poor and vulnerable. Second would be to identify conditions under which community-based adaptation is appropriate and where other institutional approaches, including individualized ones, are better suited. As discussed earlier, community-based approaches have achieved a prominent place in discussion and practice of climate change adaptation and food security, yet there is need for critical reflection.

But a third research question also emerges upon consideration of research to date. With interest in common property institutions, there has been a tendency to restrict analysis to the local-level. Yet as this working paper has sought to emphasize, other institutions are quite important for questions of governance, particularly the state. The political science literature has made important insights into how the state operates in the developing world, particularly LDCs (Boone, 2003; 2013a; b; 2014; Migdal, 2009). This is not to say that the state is the sole determining political actor and local-level research is unimportant. But more creative thinking capable of linking the state to the local-level—where climate change adaptation and food security programmes are expected to produce results—is necessary.

Governance Research beyond Institutions

While institutions clearly remain important for the governance of climate change adaptation and food security, the lack of attention given to interests and ideas demonstrated in the above review reveals a disconcerting tendency to privilege a form of normative analysis focusing on institutions—a conclusion supported by other independent reviews of the topic (Biesbroek et al., 2013; Candel, 2014). The risk is to treat governance issues superficially, as ones requiring only cosmetic changes to formal rules and organizations, and for researchers to remain unaware of deeper political factors such as the structure of a country's political settlement and the nature of prominent economic ideas—factors difficult for an outside observer to appreciate.

Stronger engagement with the political science literature would provide greater conceptual clarity on alternative theoretical perspectives on issues of adaptation and food security governance. First, the idea political settlements suggests a way of distinguishing states in terms of the particular distribution of interests and institutions found within them. As explained by Di John and Putzel (2009: 4), looking at the political settlement focuses attention on contention and bargaining between elites, between elites and non-elites, between different politically salient groups and between those who occupy the state and society more widely. As these authors continue, political settlements manifest themselves in the structure of property rights and entitlements, which give some social actors more distributional advantages than others do, and in the regulatory structure of the state. One research strategy would be to first map variation in political settlements in various CCAFS countries and, second, seek to determine if there is a relationship between political settlement and the effectiveness of adaptation and food security governance outcomes. Such information could then be used to inform how to best tailor governance interventions to the political realities present within a particular state or jurisdiction.

Second, CCAFS should engage with the political science literature on the role of ideas in the governance of climate change adaptation and food security, such as Darden (2009) and Hall (1989). Clearly economic ideas, legitimacy and moral politics, as they are held by political actors, will have an effect on the implementation and effectiveness of climate change adaptation and food security governance. In combination with the research strategy for political settlements described above, research here might first seek to map variation in key political ideas in various CCAFS countries and, second, seek to determine if there is a

relationship between them and the effectiveness of adaptation and food security governance outcomes. Whether and how ideas are more important than institutions and interests in the governance of adaptation and food security at the domestic level remains an open question.

Finally, I submit that the so-called “realist” literature offers a promising alternative theoretical perspective from which to explore governance issues, particularly because of its emphasis on political interests. Unfortunately, this rich body of literature has historically been deemed ill suited for environment politics. Yet realist perspectives are very much alive in other issue areas such as international security and, particularly neoclassical realism, are slowly making a return to the climate politics arena (Grasso and Roberts, 2014; Purdon, 2014b; Terhalle and Depledge, 2013).

In bringing this section to a close, it would be wrong to draw the conclusion that I recommend research into institutions be abandoned. Rather, what is necessary is greater incorporation of ideas and interests into the analysis of climate change adaptation and food security in order to render governance research more attentive to power, material factors and ideational factors.

The Importance of Comparative Methods

A third recommendation to inform CCAFS’s research agenda moving forward is to more explicitly deploy comparative methods in the analysis of the governance of climate change adaptation and food security. As demonstrated in the review above, the majority of studies into issues of climate change adaptation and food security have been comprised of single unstructured case-studies. While single cases-studies offer considerable insight into understanding a particular case in question and offer the opportunity for limited theory testing (such as for universal theories), they lack comparisons necessary for addressing larger issues of causality and theory generation that are more politically salient. Yet neither do *large-N* databases exist for most governance issues of interest for climate change adaptation and food security.

A few methodological innovations present themselves. A first possible solution is to undertake meta-analyses of existing single case-studies in order to identify generalizable trends that can be applied to improve policy. This strategy has been proposed for the study of governance in the field of natural resource management, where data is also not easily available and must be first acquired through meticulous case-study fieldwork (Poteete and

Ostrom, 2008). Poteete and Ostrom actually describe a variety of methods: fieldwork by individual researchers, a hybrid of meta-analysis and field data, and research partnerships and networks. As a global research network, CCAFS is clearly well positioned for coordinating such a networked research effort.

A second strategy is to undertake qualitative comparative analysis (QCA), a relatively new method that straddles the line between single case-study and *large-N* methods (Engeli et al., 2014; Marx et al., 2014; Ragin, 1987; 2007; Thiem and Dusa, 2013). Essentially QCA allows researchers to code causal factors and outcomes in a logical matrix and, through the application of Boolean algebra made possible through new software programs, identify necessary and sufficient conditions for outcomes of interest. QCA is new to the political science toolbox and its utility relative to traditional statistical methods of comparison still a matter of debate (see Krook, 2010; Stockemer, 2013). I would stress again that the emphasis placed upon QCA and other qualitative methods is not to dismiss quantitative methods, which clearly have a role in social science research. Yet for issues where *large-N* data is lacking, as is the case for the governance of climate change adaptation and food security, QCA may provide an opportunity to test causal claims. To conclude this section, I would note that a trend in social science literature is increasingly of a movement towards “mixed methods” where a variety of methods is used in a mutually supportive manner (Biesenbender and Héritier, 2014; O’Neill et al., 2013: 462-463).

Addressing the Dependent Variable Problem

The so-called dependent variable problem confronting climate change adaptation governance is another research topic that requires attention. Without agreement on what the outcomes of adaptation interventions should be nor how to measure them, there is considerable risk that research will waste resources or even lead to conditions maladaptation if research leads to policy changes that prove ineffective. It is of fundamental importance that researchers interested in climate adaptation take a step back and directly address the dependent variable problem.

The adaptation literature has already developed important analytical tools for understanding adaptation, particularly through concepts of sensitivity, adaptive

capacity/resilience and vulnerability (Burton et al., 2002; Holling, 1973; Keim, 2008).⁴ The challenge now is to operationalize these concepts and test them in a politically salient manner in order to better inform governance research. For example, drawing on the comparative policy studies literature (i.e., James and Jorgensen, 2009), Dupuis and Biesbroeck (2013) suggest a distinction between evaluation of *policy change* and *policy outcomes* as one potential way of getting out of the current dependent variable impasse facing adaptation research.

Yet temporal issues inherent in climate change adaptation appear daunting. How do we adapt to future climate conditions, given all the uncertainties involved? Certainly, climate modelling should be an important part of climate change adaptation research, though it remains a challenge to create models in which decision-makers have sufficient confidence and that operate at a scale sufficient to be actionable. In particular, predicting rainfall patterns is more complicated than predicting temperate trends because of the importance of local physical geography in shaping precipitation, mechanism that are difficult to capture (Rowell, 2012). Consequently, a regional scale is common for climate modelling of, for example, sub-Saharan Africa (Cook and Vizi, 2013; Druyan, 2011; Fontaine et al., 2011; James and Washington, 2013; Laprise et al., 2013; Lyon and DeWitt, 2012; Roehrig et al., 2013; Saeed et al., 2013; Sylla et al., 2012; Williams and Funk, 2011). Only a limited number of climate models have been applied at the national and subnational level in sub-Saharan Africa (Conway and Schipper, 2011; Cr  tat et al., 2012; Nakaegawa and Wachana, 2012),

Given the greater availability of regional-level climate models, it would be a natural next-step to integrate governance research with regional organizations for international cooperation, such as in the case of sub-Saharan Africa, SADC, COMESA, EAC, ECCASA and ECOWAS. However, Compagnon et al. (2011) raise serious concerns about the effectiveness of such regional organizations in sub-Saharan Africa for coordinating and

⁴ As described in Burton et al. (2002: 149-150), **sensitivity** is the degree to which a system is affected, either adversely or beneficially, by climate-related stimuli. **Adaptive capacity** is the ability of a system to adjust to climate change, including climate variability and extremes, to moderate potential damages, to take advantage of opportunities, or to cope with the consequences. **Vulnerability** is the degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including variability and extremes; vulnerability is a function of the character, magnitude and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.

implementing policy. Do regional organizations in other areas where CCAFS seeks to instil positive change behave similarly? In light of such questions, it might be appropriate to cultivate national-level climate models in order to produce information that is more precise and actionable, though likely also more costly.

In closing this section, it would be noted that one common theme of the policy literature is that, all else being equal, richer societies are more resilient (Wildavsky, 1980). In this light, Schelling (1997) once argued that a focus on economic development was a more appropriate strategy for developing countries rather than an explicit adaptation programme. A recent test of Schelling's argument suggests that it may only be true for LDCs because, upon reaching a certain level of economic development, the marginal benefits of development no longer outweigh climate impact (Anthoff and Tol, 2012). Arguably, an emerging consensus is that adaptation should be fully integrated with economic development. In this vein, Fankhouser and Schmidt-Traub (2011) have estimated that mainstreaming climate change adaptation into international development efforts would increase the total amount of external development financing from \$72 to \$100 billion per year. It seems reasonable to conclude that economic development, while important, is unlikely to constitute the sole outcome (i.e., "the dependent variable) necessary in climate change adaptation.

"Good Enough" Climate Governance

A research program on the governance of climate change adaptation and food security implies a standard against which governance is to be evaluated. But what should this standard be and how tolerant development practitioner community should the international community be of governance deficits that undoubtedly will be encountered once climate change adaptation and food security measures are examined closely?

Grindle has explicitly addressed these questions through the concept of good enough governance: "Good enough governance means that interventions thought to contribute to the ends of economic and political development need to be questioned, prioritised, and made relevant to the conditions of individual countries" (Grindle, 2007: 554). Too high governance standards are not only unfeasible, but might drive key actors to embrace international partnerships requiring even lower standards—a prospect considerably more possible now than even just a decade ago with the rise of emerging economies in the international development arena.

Grindle identifies two analytical approaches by which international development practitioners might tailor governance interventions in the developing world to be “good enough” relative to the existing political realities. The two analytical approaches distinguish between *context* and *content*:

On one hand, one can try to understand the context within which institutional and capacity changes are needed, devise changes that are appropriate to that context, or seek to change that context by mobilising support or dealing with opposition to change. On the other hand, they can try and understand the content of the changes they propose, assess the requirements of those reforms, and then, if possible, alter their content to be more feasible or appropriate to the context.

The first analytical approach, understanding development context, relies on using concepts of comparative politics like those mapped in this working paper—institutions, interests and ideas—to create a typology of a particular state’s development context. As has suggested throughout this review, state is remains one of the most important factors shaping development context. Here there are two modes of describing this development context. As shown in Table 1 below, Grindle suggests that one way of differentiating states is in terms of their institutional stability, organizational capacity, legitimacy and types of policies in place. The framework in Table 1 is only an example; ideally, contextual factors would be fine-tuned for issues of climate change adaptation and food security through further comparative research. For example, results from a comparative investigation of political settlements and variation in economic ideas across states, discussed above, might be used to improve on the contextual factors in Table 1 below.

A second mode for exploring the development context of governance interventions is to assess the possibility for change with in a state. For example, as Grindle continues, “[i]f states vary considerably in terms of their strengths and capacities, it is reasonable to ask if some governance reforms logically precede others... without contextual knowledge to inform decision-making, choices about what to do in particular situations are likely to be irrelevant, infeasible or poorly targeted on the roots of specific problems” (p. 563).

Table 1: A Framework of State Types for Governance Interventions

Types of political systems	Characteristics	State institutional stability	State organisational capacity	Degree of state legitimacy	Types of policies in place
Collapsed states (Iraq, Somalia, Afghanistan)	There is no effective central government.	Extremely low. There are no effective rules of the game that are agreed upon.	Extremely low. It is difficult to identify organisations that have any capacity to produce results.	Low to non-existent. Those who wield power are outside the state.	No policies.
Personal rule (Turkmenistan, Guinea, Libya)	Rule through personalities and personal connections. If political parties exist, they are based on personalities.	Stability highly dependent on personal control of power. Rules of the game emphasise power of elites and personal connections to elites; there is conflict over who controls the state.	Low. Organisations respond to the personal and shifting priorities of powerful elites.	Low. There is often significant contention over who has the right to wield power; power is used for personal wealth creation.	Policies are unstable; a major objective is to enrich those in power; few basic public services are provided.
Minimally institutionalised states (Kenya, Paraguay, Indonesia)	An unstable mixture of personal and impersonal rule, with varying degrees of legitimacy. Parties are based partly on personalities.	Basic rules of the game are established in law and practice, although they function poorly and intermittently.	Low/modest. There may be some organisations that are able to carry out responsibilities on a sustained basis.	Low/modest. Conflict over the right to wield power persists in the absence of consensus about institutions for resolving conflict.	There exist organisations to provide a range of basic public and welfare services; coverage is patchy and often based on patronage.
Institutionalised non-competitive states (North Korea, Vietnam, China)	Rule through stable and legitimate organisations and procedures; no open competition for power. Political parties serve the regime or are hindered and controlled by it.	Clear rules of the game and generally orderly processes of decision-making and public management are in place; generally centralised and authoritarian practices.	Modest. Many organisations carry out routine activities on a sustained basis.	Modest. Day-to-day legitimacy to carry on activities, but often in the presence of major questioning of the roots of legitimacy not based on consent.	A wide range of basic and welfare services may be provided, but citizens have little influence over the range and type of provision.
Institutionalised, competitive states (South Africa, Chile, India)	Rule through stable and legitimate organisations and procedures; open competition for power through programmatic parties.	Rules of the game widely recognised as legitimate and not subject to significant change; conflicts resolved through appeal to the rules.	High. Organisations challenged to improve performance on a sustained basis.	High. Legitimacy to make decisions and wield power persists even in context in which there is disagreement on decisions on the use of power.	A wide range of basic and welfare services. The range and type of provision are major themes in politics.

Source: Grindle (2007: 564)

Reflection on the development context of a particular governance intervention is only half of the exercise; once context is understood, practitioners should also tailor the *content* of their interventions to match the political and economic realities where they seek to effect change. While good governance should remain an objective, Grindle emphasizes that it is necessary to decompose governance interventions into their component parts, each which contribute to the objective (p. 567). The implementation of certain components might prove more politically challenging than others. Better understanding of the development context allows practitioners to more objectively identify when certain components of good governance reforms are unachievable and when governance outcomes achieved are “good enough”.

Overall, while “good enough” climate change adaptation and food security governance may appear to signal the scaling back of governance interventions, it promises to make them more realistic and effective. The key is to understand how various political

factors—institutions, interests and ideas—combine in different contexts in order to shape what forms of governance are feasible.

Conclusion

This working paper has sought to review basic epistemological and methodological issues of comparative politics, map out different political factors that have bearing on the governance of climate change adaptation and food security while also highlighting the important relationship between international and domestic politics. It closed by making five recommendations that harness its main insight—the need to consider institutions, interests and ideas together—towards research into the governance of climate change adaptation and food security: the need (i) to identify new dimensions for institutional research, (ii) to conduct governance research beyond institutions, (iii) to embrace more rigorous comparative methods, (iv) to address the “dependent variable” problem in climate change adaptation research and (v) to come to grips with “good enough” climate governance.

The emphasis on methods and conceptual tools of comparative politics found in this working paper may appear new to some of CCAFS research community, but certainly not all. One reason is that comparative political scientists are only beginning to engage with environmental issues. Yet, as this working paper has sought to show, many existing concepts identified in the comparative politics literature are highly transferable to issues of climate change adaptation and food security. Another reason is that certain fundamental epistemological debates—such as between positivism and non-positivism—have historically been more prevalent in the environmental field than in other issue areas. There are certainly grounds to be sceptical of the predictive power of political science. Yet as I hope has been demonstrated in this working paper, comparative politics does bring greater analytical clarity to issues of governance and, with future research leveraged through the CCAFS network, promises to yield greater understanding of the political, economic and social issues at play in climate change adaptation and food security.

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