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**The Political Economy of Social Protection under Climate Change:  
A Comparative Historical Analysis of Policy Regimes in Bangladesh and Ethiopia**

**Abstract**

*Resilience- and adaptation-oriented policies are formulated and implemented against a backdrop of struggles within and between nations, regions, classes, ethnicities, and households. Even programs with the ostensible goal of ensuring minimum livelihood for climate-vulnerable populations involve tradeoffs and contests over the distribution of power and resources. Given this, what are the effects of different social protection policy regimes on equity under climate change? The present paper seeks to address this question through a comparative-historical analysis of adaptive social protection policy regimes in Bangladesh and Ethiopia, two of the world's most climate-vulnerable countries. Preliminary conclusions suggest that, while Ethiopia has been relatively more effective at shorter term safety net programs, Bangladesh has been relatively more effective at longer term livelihood adaptations. I trace these outcomes to their political roots: an authoritarian party-state in Ethiopia with a vested interest in preserving stability but few incentives to promote adaptive change, and a fragmented and clientelistic state in Bangladesh that fails to ensure an equitable safety net but nonetheless has successfully promoted adaptive climate-smart livelihood in important ways. I conclude by discussing how both cases could benefit from improved bottom-up accountability mechanisms, but in different ways.*

**Introduction**

Governments, civil society organizations, and donors are working to build agricultural and food security governance systems that ensure resilience to climate change for populations across the developing world. Yet these efforts take place across uneven sociopolitical, economic, and cultural topographies. While it has been established beyond doubt that climate change will have far more pernicious effects on some populations and societal sub-groups than on others, it also seems to be the case that climate-related *policies* affect different populations and societal sub-groups in different ways. Resilience- and adaptation-oriented policies are formulated and implemented against a backdrop of struggles within and between nations, regions, classes, ethnicities, and households. Even programs with the ostensible goal of ensuring minimum livelihood for climate-vulnerable populations involve tradeoffs and contests over the distribution of power and resources. This paper is centrally concerned with how these equity effects of climate policy play out in two of the world's most climate-vulnerable countries: Bangladesh and Ethiopia.

While researchers can and do fruitfully study the effects of particular policies and programs, these interventions tend to be intricately tied up with one another into broader policy regimes. By *policy regimes*, I mean the set of policies that shape a given sector, in addition to the formal and informal

institutions that govern the constituent policies' formulation and implementation. Ultimately, it is the cumulative effect of a policy regime that shapes the overall equity effects rather than independent effects from its constituent parts, given that individual policies interrelate with one another in their formulation and implementation, and interact with one another in their effects. How do alternative policy regimes give rise to differing equity outcomes?

In addressing aspects of this question, I focus on one particular type of policy regime: "adaptive social protection (ASP)" (Davies et al. 2008). By encompassing both short term safety nets aimed at building resilience against climate-related disasters and longer term livelihood strategies focused on facilitating climate-smart agriculture both (ostensibly) for the poorest and most marginalized segments of the population, ASP highlights the policy, institutional, and governance practices and structures that most directly shape within-country equity outcomes under climate change. While precise causal arguments and clear-cut policy recommendations will require further research along these lines, this paper introduces an approach to developing and testing policy-relevant theories with which it considers the existing evidence and puts forward preliminary, broad hypotheses regarding the two country cases that can help to frame and develop more general theories. While policy regimes can arise at many levels of governance from local to global, national-level analysis of policy regimes is the most natural for addressing the questions that this paper is concerned with, since social protection policies (including ASP) tend to lie in the domain primarily of national governments (notwithstanding the fact that these may be influenced by interactions with the international community and/or be implemented in part by subnational authorities).

In particular, this study builds on recent attempts to integrate comparative methods from political science and sociology into climate governance analysis (Purdon 2014; Steinberg and VanDeveer 2012) by introducing a comparative-historical analysis of climate adaptation in Bangladesh and Ethiopia. It draws upon techniques of small-N theory development and causal inference from sociology and political science to develop and preliminarily test empirically-grounded hypotheses on the equity effects of different adaptation governance approaches. The analysis will help to frame emerging conversations about how the policies and interventions that collectively define governance systems can best spread resilience across social inequalities and hierarchies.

In particular, the paper compares the apparent effectiveness of two dimensions of ASP in Bangladesh and Ethiopia: shorter term safety net programs designed to maintain basic food security during climate disasters, and longer-term adaptive livelihood approaches aimed at promoting "climate-smart agriculture" (Lipper et al. 2015). It finds that Ethiopia has been relatively effective at ensuring that

climate-affected communities are provided with basic food security through various transfers and public works programs. While Bangladesh has comparable provisions in place, its safety net programs seem to have been beset by a variety of targeting programs, including rampant corruption, that have essentially resulted in the most vulnerable populations receiving the least amount of assistance. On the other hand, Bangladesh has performed relatively well at innovating climate-smart livelihood solutions that may position it well for longer term adaptation. But here, Ethiopia's party-state has remained so focused on achieving political stability that its ASP policy regimes has kept vulnerable populations hovering at the subsistence level without introducing steps toward the social changes that will be required for long-term adaptation.

I tie these differing outcomes to the contrasting politics of the two countries. While both countries operate within deeply authoritarian legacies, Bangladesh has achieved a more or less free parliamentary democracy (notwithstanding several recent episodes suggesting the contrary) and has a flourishing civil society. Undercurrents of clientelism have penetrated deep within the country's governance structures, profoundly impairing its ability to equitably spread its safety net. However, the civic space that it has maintained and the relatively open political process has permitted dialogue about longer-term adaptation in which innovations emerging from the civic sector have been encouraged and sometimes even built upon. Ethiopia's strong, top-down political authority has usually allowed it to move safety net resources where and when it needs to in order to avoid mass starvation, but its lack of civic space and lack of tolerance for alternative political visions has precluded long-term adaptation. Empowerment of vulnerable populations could help the situation in both contexts, but in different ways: in Bangladesh it should perhaps be directed toward community-based accountability mechanisms that ensure equitable implementation, while in Ethiopia it is unlikely that viable pathways to long-term adaptation without a more pluralistic political process. Below, I consider some reasons as to why more authoritarian regimes may be able to manage the implementation of safety net programs while the longer term cultivation of climate-smart livelihoods requires greater community mobilization.

In the remainder of the paper, I first outline the conceptual backdrop to the questions dealt with by positioning this study within the literatures on climate and equity, adaptive social protection, and policy regimes. I then explain the study's analytical and methodological approaches, explaining the selection of cases and providing background on ASP policy regimes in Bangladesh and Ethiopia. Finally I move on to the empirical core of the paper, tracing the policy outcome in each country case to its political roots while highlighting contrasts between the two cases, before discussing in broad and preliminary strokes the theoretical and practical lessons drawn.

## **Theoretical Background and Conceptual Frameworks**

### ***Climate Adaptation Policy and Equity***

As scientists and policymakers have increasingly come to appreciate the extent to which climate change will disrupt (and is currently disrupting) the global political economy, equity concerns have rapidly arisen. Debates have raged within global policy conferences, international organizations, and academic journals over who is responsible for bearing how much of the costs of climate change. However, neither the robustness of the debates that have arisen around climate equity nor the frequent use of the word in both policy and academic discourse mean that all important aspects of the issue have been sufficiently discussed.

Instead, debates on climate equity have tended to gravitate around a few focal points which, while necessary to address for a balanced climate governance vision, are far from sufficient. First, a great deal of research on climate equity explores the extent to which climate change differentially impacts different populations (e.g., Tol et al. 2004). This research has helped to build a powerful consensus that poor countries are the most vulnerable to climate change, in part as a result of their greater degree of geographic vulnerability but especially because of their reliance on natural resources and the need for strong economic resources to cope with climate change. The lion's share of this research has examined the equity effects of climate change *across* rather than *within* countries (notwithstanding frequent anecdotes about particularly climate-affected areas like coastal zones). According to Mideksa (2010), "the implication [of climate change] for with-in country income distribution is left totally unexplored. To the best of my knowledge there is no single research paper about the implication of climate change for with-in country distribution for any country let alone for developing countries" (p. 279). While some progress has been made over the past few years in this regard, the within-country distributional effects of climate change remains a relatively nascent research agenda.

The strands of research referred to above, including Mideksa's study, consider the effects of climate change itself on equity. But it is equally vital for researchers to consider the effects of climate-related adaptation *policy* on equity. Policies virtually always exert a whole constellation of intended and unintended distributional outcomes, and climate adaptation policy is certainly no exception in this regard. A huge body of work has explored the effects of climate policy on equity outcomes, but these

are generally either transnational in scope (i.e., the massive literature on global climate governance and how adaptation costs should be distributed) or concerned with mitigation rather than adaptation. For instance, Boccanfuso, Estache and Savard (2011) survey the relatively small quantity of evidence on within-country equity effects of climate policy, but even this survey focuses only on the distributional effects of mitigation policies. Thus, there is great need for more research on how climate adaptation policies and the policy regimes that give rise to them affect distributional outcomes. While the connection between mitigation and equity may be more intuitively obvious, adaptation also involves a great deal of resource mobilization and thus also yields equity consequences.

Understanding the within-country effects of climate adaptation policy is especially important since research suggests that climate change may aggravate inequality at subnational and local scales, as those most marginalized in terms of income, assets, social status, etc. are also most affected and have least recourse when climate shocks arise (e.g., Brouwer et al 2006; cited in Coirolo et al. 2013). As Coirolo et al put it, “Poor people are not only most affected by the combination of greater exposure to hazards and a lack of supporting infrastructure, but also have less capacity to adapt after disasters—with fewer reserves to dedicate to coping with the effects of disasters” (2013, p. 86). By amplifying existing inequities, climate change may set off vicious cycles of vulnerability leading to greater political marginalization leading to increased vulnerability, unless targeted policies disrupt the cycle.

While a several studies yields clear implications for this open question (e.g., Barrett 2014) these studies have focused on relatively narrow policy areas. But manifestation of changing equity structures vary greatly depending on a wide range of factors: “Structural and group characteristics such as gender, caste, race, ethnic affiliation, indigeneity, and age—even when they are not consistent predictors—are often related closely with vulnerability. The degree to which they are associated with vulnerability tends to depend on location- and culture-specific factors” (Agrawal 2010, p. 177). It is difficult for researchers and practitioners to understand what works under what circumstances without placing case studies within a comparative framework. I will argue in the methodology section below that cross-case comparative analysis offers promising opportunities for policy-relevant analysis in this area. First, however, I explain why it is helpful to use an ASP lens when analyzing the equity effects of climate change policy, and why use of this lens for this paper’s purposes necessitates a focus on the policy regime level.

### ***Adaptive Social Protection***

Equity represents an incredibly complex set of interlocking concepts and relationships, and it is difficult to disentangle the full implications suggested by the term outside the context of long-term anthropological research. Given the broad brush stroke approach taken here, a nuanced discussion of equity issues within each of the cases is beyond the scope of this study. Nonetheless, equity issues manifest in gross as well as subtle ways, and it is possible to get a broad and general sense of the extent to which marginalized populations are able to access some minimal levels of resources. In this paper, I essentially operationalize equity as the efficacy and coverage of social protection regimes. This is because the notion of social protection encompasses virtually any efforts through which the state seeks to improve food security and livelihoods among poor and otherwise marginalized populations. While all social protection is concerned with livelihood and food security, considerations of climate change are only beginning to be drawn into social protection discourses. In this section I summarize some of these recent discourses to contextualize the present study by explaining ASP as laid out by Davies et al. (2008; 2013).

Even if climate adaptation strategies prove themselves successful beyond observers' most optimistic expectations, climate volatility will continue to induce severe livelihood shocks among vulnerable households for decades to come. In light of this inevitability, "It has been proposed that in order to ameliorate the effects of climate change on vulnerable populations, particularly when the nature of the impacts is uncertain, safety-nets need to be strengthened within the country to protect vulnerable populations who are inherently at a higher risk from disasters" (Coirolo et al. 2013, p. 75). The category of social protection (SP) includes all those policies and initiatives "that transfer income or assets to the poor, protect the vulnerable against threats to their livelihoods, and enhance the social status and rights of the marginalized. The end-goals of SP include security...equality...and growth" (Béné et al. 2014, p. 4). Although SP has traditionally been associated with short term and emergency-oriented assistance, the field increasingly focuses on "longer-term mechanisms designed to combat chronic poverty" (Davies et al. 2013, p. 30). SP thus contains a wide range of activities from cash, food, and asset transfer systems (some conditional and some not) to public works programs, finance, and livelihood schemes.

But although climate change brings about new imperatives for SP, this does not mean an entirely new SP machinery should be created. In many countries, including both Bangladesh and Ethiopia, climate change manifests as a worsening of climate volatility that has ravaged livelihoods for centuries. Citing the 2010 *World Development Report*, Coirolo et al. emphasize the "possibility of government strengthening existing safety-net programmes that can then be ramped up when disasters

strike, as opposed to creating new programmes specifically for disasters” (2013, p. 76-77). SP institutions, construed broadly, have been instrumental in reducing poverty and contributing to social development in a wide range of countries long before it was known that the climate was changing, and would be central elements of development plans even without climate change. Strengthening SP systems is thus an example of a “no-regrets” approach, “meaning actions that generate net social benefits under all future scenarios of climate change and impacts” (Heltberg, Siegel, and Jorgensen 2009, p. 89). But for countries like Bangladesh and Ethiopia, the imperatives of adaptation will greatly shape the needs that the population has in an SP program as well as the institutional and political economy contexts in which SP programs are shaped.

As a result, several scholars have recently argued for a tighter and more explicit integration between social protection and climate change. Davies et al. (2013) capture the spirit of several related frameworks through their elaboration of the term “adaptive social protection (ASP)” as a blend of SP, disaster risk reduction (DRR), and climate change adaptation (CCA). This framework is especially applicable to countries like Bangladesh and Ethiopia, where climate change manifests in large part as a worsening of disaster conditions that the countries have already faced for decades. The emphasis on DRR highlights the need for strong social insurance institutions and for flexibility, among other elements. And the emphasis on CCA beyond DRR highlights the needs for longer term strategies like the livelihood diversification and CSA.

Collectively, these lenses describe the institutional forms necessary not only to ensure the provision of adequate livelihood resources and assets, but also longer term social change through “the development of rights-based approaches as a means of empowering people to exercise their ‘voice’ and so acquire immediate benefits” (Davies et al. 2013, p. 34). Initiatives integrating the different branches are more likely to work towards longer term and more transformative solutions based around sustainable livelihood and permanent graduation from poverty (Davies et al. 2013). According to a recent review, “The emerging evidence, therefore, demonstrates that by combining SP, DRR and CC, it is possible to help people find longer-term solutions to the impact of disasters and prepare for the impact of climate change” (Béné et al. 2014, p. 5).

ASP programs draw on a wide range of program types that have developed within domestic and international development communities working to promote social protection, including cash and asset transfers, pensions, insurance, public works schemes, and more (Béné et al. 2014). Globally, three initiatives have championed the increased integration of SP, DRR, and CC: the World Bank’s “social

dimensions of climate change” programming; the DFID-sponsored, IDS-managed Adaptive Social Protection Programme; and the African Climate Change Resilience Alliance (Béné et al. 2014).

Yet despite the promise it offers and the increasing attention it has received as of late, existing scholarship still lacks clarity on the circumstances under which ASP can be effective, and in what ways (Johnson et al. 2013; Weldegebriel and Prowse 2013). To begin to address this gap, this paper explores successes and shortcomings of ASP in two country cases, Bangladesh and Ethiopia, which share some important commonalities but differ markedly in many others. The analysis will help to elaborate conditions that facilitate effective ASP. In particular, I organize the analysis around two dimensions that I understand as representing ASP’s primary objectives: 1) short-term safety net assistance (in line with the imperatives of DRR) and 2) long term climate adaptation (in line with the imperatives of CCA). First, climate change comes with increasing climate volatility that leads to increasing livelihood shocks, so ASP is needed to institutionalize safety nets that can cope with these. Second, direct assistance and the secondary effects that greater social insurance has on allowing for longer-term investment can help promote new livelihood strategies among marginalized populations that will improve their food security and make them more resilient to climate change. Conversely, social protection strategies that do not sufficiently incorporate the exigencies of climate change risk promoting maladaptation, measures that may soften the edges of poverty in the short run but may lead to greater vulnerability in the long term (Béné et al. 2014).

But given the broad range of practices that collectively constitute ASP, how can these functions be broken down and compared? I explain my conceptualization of ASP policy regimes in the following section.

### ***Policy Regimes and Social Protection***

Individual interventions and policies are generally limited in their areas of engagement. While different policies and interventions of state agencies, local civil society, donors, and a wide variety of other stakeholders by no means coalesce into perfectly coordinated strategies, the structures emerging from the cumulative interaction of these efforts yield combinations whose collective results can be studied independently of the narrow impact of any individual intervention (Candel 2014). Governance systems exist at multiple overlapping levels from local to global, but the national level provides an important institutional interface between the extremes and also facilitates comparative analysis.

But if climate-sensitive food system governance systems are to be compared to one another, how should they be conceptualized to highlight important elements? If evaluating individual policies in isolation is too narrow, then lumping together all policies with some bearing on climate would be too broad. What would a manageable meso-level approach look like?

This paper takes as its main unit of analysis national-level “policy regimes.” I use the term “policy regime” as it is generally used within development studies and welfare state research, to indicate a more or less congealed set of policies and the structures that sustain them. “Policy regimes” are closely related to “institutions,” and these terms are sometimes used interchangeably within the literature. However I conceptualize institutions as the more deeply rooted structures, societal rules, and patterns of interaction that underpin policy regimes, the latter being the political content through which institutions manifest.

My use of the term “policy regime” also differs from the term “policy” in several ways. First and most obviously, policy regimes are sets of interconnected individual policies. Given the possibility for synergies or frictions, the effects of policy regimes may be greater or less than the sum effects of their constituent policies. Second, while the term “policy” connotes a more or less one way movement from policymakers to implementers to the governed, the addition of the word “regime” highlights the fact that the effects of policies feed back into the policymaking institutions (generally by empowering or disempowering certain constituents), creating more or less enduring and self-perpetuating structures (May and Jochim 2013).

Furthermore, the term policy indicates a set of instructions that may or may not be followed, or may be followed in a variety of ways. On the other hand, the term “regime” can encompass “governance” more broadly, with governance denoting “new forms of regulation that differs from traditional hierarchical state activity and implies some form of self-regulation by societal actors, private-public co-operation in the solving of societal problems, and new forms of multilevel policy” (Biermann 2007, p. 328, with the original stated in reference to “earth systems governance”). So the term “policy regime” highlights the policy equilibria that emerge from the interaction between states, businesses, civil society, and other social actors. And it therefore encompasses informal as well as formal institutions, and policy implementation as well as policy formulation. As Lavers and Hickey (2015, p. 8) argue, drawing inspiration in part from studies on welfare state development in the rich world focusing on class-based mobilization, “an important factor influencing social protection expansion in countries enjoying some degree of democratic freedom will be the ability of disadvantaged groups to overcome collective action problems and mobilise around common class, ethnic, gender, or other interests to

demand social protection expansion, and the nature of their relationships to elite factions within the ruling coalition.”

This paper’s emphasis on policy regimes as opposed to individual policies or other types of intervention on one hand and broader global dynamics on the other is in line with recent efforts to integrate the analysis of power and political economy using comparative case studies. Purdon elaborates motivations and elements of a broad research program in this light with regard to climate governance. Lavers and Hickey (2015) argue for a “political settlements framework” in this vein with regard to social policy. But actual empirical work along these programs remains in its infancy, and few if any studies thus far have used a lens of this sort to examine the intersection between climate change adaptation and social protection (one recent exception is Coirolo et al. 2013). Furthermore, the inductive comparative analysis undertaken for this study found policy formulation versus implementation to be an important axis of distinction when identifying risks to equity within climate-oriented social protection systems.

### ***Drawing the Frameworks Together***

Thus, this paper seeks to analyze the equity effects of policy responses to climate change at the within-country level. It does so in broad comparative strokes by comparing the ASP institutions in two highly climate-vulnerable low-income countries. ASP is chosen as an anchor for the evaluation of equity since it represents the core policy arena in which state agencies and other development practitioners ostensibly seek to improve livelihood and food security for marginalized population. Rather than comparing particular programs or agencies, I compare ASP policy regimes, taking into account formal and informal institutions as well as state and non-state actors. In particular, I will divide the analysis below into two broad categories: short term safety net functions and longer term climate change adaptation. Before proceeding with the analysis, I discuss the study’s methodology.

## **Methodology**

### ***Analytical Approach***

The majority of existing empirical research on climate-smart food governance policies and interventions is either econometric or anthropological in approach. The former consists primarily of focused impact evaluations or more macro-oriented regression-based studies. Both of these forms of analyses focus primarily on estimating average causal effects (Mahoney and Goertz 2012), and generally

have difficulty providing nuanced insights on what types of interventions work in which contexts. The anthropological approach consists of in-depth, usually local-level case studies focused on interpreting ground-level interactive processes. While these methods have and continue to yield highly productive results, structured methods of comparisons at more aggregated levels could help to develop and test hypotheses about which interventions work best in which broader contexts. Given that “specific technical and policy interventions must be situated within a broader holistic approach to agricultural and food system management” (Vermeulen, Campbell, and Ingram 2012, p. 208), analysts would do well to supplement the rich existing literature on particular interventions with macro-level comparative analysis to the extent that they want to build theories with broader applicability.

Techniques for comparison of national level policy regimes have long been squarely in the domain of the comparative historical analysis tradition in sociology and political science (Mahoney and Thelen 2015). Comparative-historical analysis refers to a bundle of techniques that involve the use of detailed descriptions of sociopolitical configurations combined with analytical tools from logic and set theory (Mahoney and Goertz 2012), although the latter are often implicit. These techniques include the systematic comparison of multiple cases (Mahoney 2000) and/or within-case analysis that focuses in on configurations of conditions and events within particular cases to identify causal mechanisms (Bennett and Elman 2006). Several scholars have recently shown that these techniques could be invaluable in solving key puzzles associated with climate change (Purdon 2014; Steinberg and VanDeveer 2012), while others have shown their prospective utility in analyzing social protection (Lavers and Hickey 2015) .

More specifically, this paper draws on the approach of “dual process tracing” (Tarrow 2010). Process tracing in general is an umbrella of methodologies that “refers to the examination of intermediate steps in a process to make inferences about hypotheses on how that process took place and whether and how it generated the outcome of interest” (Bennett and Checkel 2015, p. 5). Dual process tracing, commonly undertaken although the term is virtually never used outside of Tarrow’s (2010) article, refers to a combination of process tracing and cross-case analysis in process tracing is conducted simultaneously on two separate cases, and similarities and differences highlighted between the two cases provide added leverage.

### ***Case Selection***

The core empirical component of this study is a comparative analysis of ASP policy regimes in Bangladesh and Ethiopia. Why select these two countries as cases for a study seeking to make progress in shedding light on the equity effects of climate-related policy more broadly? The primary reason for

selecting these two countries is that they perhaps the two most “substantively important cases” (Mahoney and Goertz 2013) when it comes to poor countries facing climate change. As used here, the term “substantively important cases” refers to cases to which, if a given theory did not apply, that theory would be called into question. I classify these two countries as substantively important for the study at hand for four main reasons. First, they are both highly populous. With a population of 169 million, Bangladesh is the eighth most populous country in the world, while Ethiopia’s make it the second most populous country in Africa.

Second, they are both very poor. Although Bangladesh was recently promoted from lower- to lower-middle income status by the World Bank, much of its population continues to remain mired in poverty, and it is the poorest country in South Asia other than landlocked Nepal (and Afghanistan, which is only sometimes classified as South Asia anyway). Ethiopia has long been among the ten poorest countries in the world (USAID 2015).

Third, both countries are among the most vulnerable to climate change in the world from a geophysical perspective. Bangladesh’s long coast, extremely low-lying topography, and massive river system combine to make it vulnerable to a wide range of climate ills, including floods, cyclones, and salinization from rising sea levels, even as droughts ravage drier regions of the country (and during drier seasons). Ethiopia has, for decades, suffered debilitating droughts (Bewket et al. 2015) that have led to famine and violent conflict.

Fourth, both countries are heavily dependent on agriculture. Given that agriculture is one of the sectors likely to be most heavily influenced by climate change, countries in which large shares of the population—often the most marginalized shares—depend on agriculture will be at the forefront of the struggle for social protection against a backdrop of climate change.

However, beyond the broad similarities that make both of these countries important cases for climate change, there are enormous differences. Most obviously, Ethiopia is located in the horn of Africa, which has a very different set of regional dynamics from Bangladesh’s neighborhood of South Asia (although both have seen their share of border wars and proxy conflicts). Ethiopia is highly fragmented across ethnolinguistic groups, and conflicts over scarce resources made scarcer by climate change have erupted along ethnic lines (Bewket et al. 2015, p. 32). Bangladesh is more or less ethnically homogenous on the other hand, notwithstanding some important sectarian divides. And while both countries are poor, Ethiopia is much poorer. Bangladesh’s per capita income at purchasing power is more than twice that of Ethiopia. And while Bangladesh has managed some, albeit relatively low-value industrialization, Ethiopia remains much more heavily dependent on agriculture and lacks any

substantial industry. Smallholder agriculture predominates in both countries, but more so in Ethiopia, with smallholders dominating agriculture with a share of 87% (Nzuma et al. 2014, p. 10, citing African Development Bank 2010).

These two countries were selected as cases in part because of these differences. Bangladesh and Ethiopia are about as different as two poor, highly populous, and highly climate change-vulnerable countries can be. This allows the analysis to highlight a wide range of considerations relating to ASP policy regimes. These differences can be leveraged for a “most-different” comparative design (Seawright and Gerring 2008). Consideration of differences gives a sense of the range of possibilities across which many other developing country cases may lie.

### ***Empirical Approach***

The empirical analysis on which this paper is based is still in progress. To facilitate the comparison of the equity effects of climate-smart food governance regimes in Bangladesh and Ethiopia, I have been drawing on secondary data to construct a rich macro-level picture for each country. This has involved conducting structured searches of relevant keywords in a variety of sources, both peer-reviewed and grey literature, in order to identify a comprehensive set of plans, evaluations, and analyses from NGOs, academic sources, government documents, and more. For example, I have been consulting government-wide strategy papers (e.g., NAPAs), documents from relevant government agencies, documents from civil society organizations, from research agencies like CCAFS/CGIAR and the World Bank, and academic journals like *Global Economic Change*, *Development Policy Review*, *Food Policy*, *World Development*, *Nature Climate Change*, etc.

### **Social Policy Regimes in Bangladesh and Ethiopia**

#### ***Bangladesh Overview***

Since achieving independence in 1971, Bangladesh has made immense progress in the face of repeated massive setbacks. Amidst military coups and assassinations, cyclones and floods, the country managed to move from near-famine conditions to achieving a life expectancy at birth longer than India, Nepal, and Pakistan (World Development Indicators). While Bangladesh has achieved an impressive

growth rate in recent years, even more impressive has been its ability to leverage the income that it has attained for shared development, allowing it to score better than India and Pakistan on many social development indicators despite having lower income (Drèze and Sen 2013). Although democracy in Bangladesh continue to face grave challenges, as most recently indicated in the alleged electoral fraud of the 2014 parliamentary elections it has developed a flourishing, diverse, and active civil society over the past few decades and a more or less stable parliamentary system since 1991 (Bhuiyan 2015).

Bangladesh has managed these achievements in large part through SP programs provided by state, civil society, and international development assistance. Major government-run social programs in Bangladesh include Food for Work, Vulnerable Group Development, Test Relief, and Rural Maintenance Program (Coirolo et al. 2013). Bangladesh is also known for a civil society that has fulfilled SP services in innovative ways that have impressed the development establish enough to be spread to a wide variety of contexts (e.g., BRAC's graduation program and Grameen Foundation's microfinance). These NGOs have become involved in spearheading many community-based adaptations (CBA) activities (Ayers et al. 2014, p. 47). Nonetheless, deeply entrenched pockets of poverty and broad swaths of vulnerability remain.

In addition to its position as a leader in SP among Least Developed Countries, Bangladesh has been a highly public advocate for the need to take action both to mitigate and adapt to climate change, including championing the responsibility of today's developed countries to finance adaptation efforts in the developing world. This ostensible commitment to mitigating and especially adapting to climate change is further evident in domestic policy, as reflected in a variety of key documents released by the Bangladeshi government. Bangladesh was among the first countries to submit a National Adaptation Program of Action (NAPA) in 2005, and a version of this same NAPA updated in 2009 along with the 2009 Bangladesh Climate Change Strategy and Action Plan (BCCSAP) remain in effect today (Ayers et al. 2014). BCCSAP is Bangladesh's cornerstone climate document, and was originally drafted following a series of climate-related catastrophes in 2007, before being reformulated and launched in March 2009 (Alam et al. 2011). The climate-related positions laid out in these documents are referenced frequently in other development planning documents not specifically focused on climate change, including the "Vision 2021" Perspective Plan, the National Sustainable Development Strategy, and the Five Year Plans. Most recently, the Intended Nationally Determined Contribution (INDC) prepared by Bangladesh for the 2015 Paris Climate Conference reaffirms the 2009 NAPA, the BCCSAP, and the climate strategies laid out in other development planning documents. The nodal agency for climate-related issues is the Ministry of Environments and Forests (MoEF).

## ***Ethiopia Overview***

Like Bangladesh, Ethiopia has experienced immense political turmoil and devastating violence, as well as numerous catastrophic natural disasters. And like Bangladesh it has seen increased political stability in recent years, as well as increasing economic growth and social development (although the latter continues to lag significantly). Unlike Bangladesh, however, Ethiopia lacks a flourishing and robust civil society and retains in some respects more authoritarian tendencies than Bangladesh. USAID's Civil Society Organization Sustainability Index report on Sub-Saharan Africa marks Ethiopia as among the lowest of the countries ranked on the health of its civic sector (USAID 2014).

Much of Ethiopia's policy relating to agriculture and food security fall within the auspices of the 1993 Agricultural Development Led Industrialization (ADLI) strategy (Nzuma et al. 2014, p. 21), through which the government seeks to leverage increased smallholder farming productivity as a basis for longer term industrialization (see Lavers 2013 for a critique).

After decades of repeated food emergencies and famines, Ethiopia in 2005 initiated the Productive Safety-Net Programme (PSNP) in an effort to create a longer term, institutionalized food security system. Reaching over eight million beneficiaries, totaling to around a tenth of Ethiopia's population, the PSNP is Africa's largest social protection program (Weldegebriel and Prowse 2013, p. 42). The PSNP is primarily a public works program, providing cash and/or in kind for a maximum of 30 days of work per year per individual. Around 15 percent of total recipients deemed incapable of working receive the benefits without any work requirement. Given the relatively small payment and the 30 day maxim, the PSNP is designed to be supplemented by other food security interventions rather than providing food security on its own (DFID 2009; Weldegebriel and Prowse 2013).

A recent CCAFS study identified fifteen major institutions in Ethiopia working on climate change and food security, of which the Environmental Protection Authority (EPA) is the nodal coordinating agency and UNFCCC focal point. Including the EPA, seven of these are government agencies, two are NGOs, two are universities, one is a research organization, and three are regional/UN organizations. (Nzuma et al. 2014, p. 13-15). The country's primary institution for coordinating state efforts with those of foreign donors and the private sector has been the Climate Facility, established by the Government of Ethiopia in collaboration with the United National Development Programme to implement the Climate Resilient Green Economy (CRGE) Strategy (Government of Ethiopia, 2011; Nzuma et al. 2014, p. 14). Ethiopia's Programme of Adaptation to Climate Change (EPACC) is the country's primary framework for

adaptation efforts, having replaced the NAPA that had been submitted to the UNFCCC in 2007 (Nzuma et al. 2013, p. 15).

### **Short-Term Safety Nets and Climate Volatility**

#### ***Policy Outcomes***

The most immediate effects of climate change come in the form of a worsening of climate volatility and disasters that have long been in occurrence at some scale (Vermeulen, Campbell, and Ingram 2012). Studies note increased climate disasters in recent decades in both Ethiopia and Bangladesh (Bewket et al. 2015; Khan et al. 2010). In both cases, the respective governments have noticed these increases and the need for an institutionalized reaction to them. Major government ASP strategies in both countries were initiated in response to repeated disasters. But how well do the resulting emergent ASP policy regimes protect vulnerable citizens from these disasters and their associated devastation of livelihood?

Although Ethiopia has long ranked among the world's poorest and more food insecure countries, the central food safety net systems that it has developed over the past decade have been widely complained. Whatever flaws doubtlessly exist within the system, the PSNP seems to have made an impressive dent in food insecurity. The PSNP has been touted as a model social protection program for Africa (Lavers 2013), and its successes has been enthusiastically heralded, even by skilled, meticulous researchers: "evidence shows that the PSNP can help people to build resilience against shocks, many of which are climate-related (Bene et al. 2012). In the face of drought, flood, illness, loss of livestock, or loss of crops, analysis shows that in most instances, households receiving PSNP transfers are able to manage the shocks better than those that do not receive the transfer" (Béné et al. 2014, p. 4-5).

On the surface, Bangladesh has also generally been successful in casting wide safety nets that encompass large swathes of the population. These nets are more or less effective at providing minimal food security under most circumstances, at least in contrast to what recipients' situations would have been without the program (Coirolo et al. 2013, p. 80, citing Ahmed 2007). Moreover, the experience shows that these programs can be climate-sensitive. For instance, the Government of Bangladesh was able to scale up its "vulnerable-group development programme," which normally supports around two million households, to covering 10 million households in 2008 following Cyclone Sidr (Coirolo et al. 2013, p. 77).

However, despite having several ASP programs with wide coverage, this ASP lacks provisions for the many of the wide array of livelihood challenges that may arise with climate disasters, including

deaths of wage-earners, loss of assets, the need to use savings for subsistence disease, etc. As Coirolo et al. (2013, p. 79) put it, “the rigidity of existing programmes is particularly troubling, given that flexibility in assistance will be paramount under increasingly uncertain climatic conditions.” Furthermore, the safety net contains substantial holes, both geographically and in terms of their ability to access particular types of people: “...not every region has a shelter centre close by, and some families do not have an able-bodied person with the strength to collect the programme benefits. Women, the disabled, and elderly...face difficulties...Mostly, the benefits are insufficient to mitigate losses from shocks and increase resilience” (Coirolo et al. 2013, p. 79-80). Resettlement programs rarely take into account the “needs of women, the elderly and disabled” (Coirolo et al. 2013, p. 86).

Among the most often noticed shortcomings within Bangladesh’s safety net programs is the poor targeting that observers have repeatedly noted. The districts identified as most food secure actually received significantly less food assistance per capita than other districts (Coirolo et al. 2013, p. 85), leading to greater disparities in vulnerability.

### ***Political Roots of Safety Net Outcomes***

From what social, political, and economic conditions did the above policy outcomes emerge, with regard to climate-sensitive safety nets in Ethiopia and Bangladesh? While a nuanced analysis of deep causal roots in the two cases is beyond the scope of this paper, this section broadly traces the outcomes described in the preceding section to the ASP policy regime from which they emerged.

The efficacy with which the Ethiopian state has implemented the PSNP and accompanying safety net programs must be understood in light of its status as a single-party state with authoritarian tendencies. While the government is positioned differently with regard to different ethnolinguistic communities and different geographical regions of the country, two decades of insurgency followed by two and a half more of single-party rule has facilitated a deep embeddedness of the ruling party within a critical mass of state territory.

Although Bangladesh lacks Ethiopia’s strong party-state legacy, it is a richer country with significant state capacity and a recent tradition of strong social protection (at least as provided by BRAC and other civil society organizations). Why then does its safety net programs fall so short of what might be expected, particularly in comparison to Ethiopia? Data provided by BRAC Development Institute (2009) cited in Coirolo et al. Rahman (2013, p. 80) provides a good starting point by showing the breakdown of reasons given for why disaster-affected households did not receive aid. This data identifies the reason “No assistance was available” as the number one reason given, which suggests

some combination of a shortage of ground-level coverage (given that high-level policy planning documents would suggest much fuller coverage) and a lack of communication to the public on the availability of support (“Did not know” was a separate response category, but if respondents were misinformed than they could have chosen either of these responses). The second most commonly selected reason was corruption.

Adaptation and development outcomes are determined less by policies themselves than by the processes that arise in conjunction with their implementation. In Bangladesh, corruption has been a key barrier to the effective implementation of safety net program: “the success of programmes depends partly on the level of fiduciary risk....Here there is good reason to be concerned. Bangladesh was ranked bottom of Transparency International’s Corruption Perception Index (CPI) for five consecutive years between 2001 and 2005....the 2010 CPI still placed Bangladesh 134<sup>th</sup> from 178 countries” (Mahmud and Prowse 2012 p. 933). Bangladesh’s position has stagnated since, ranking 139 in 2015, while poorer Ethiopia ranked 103 (Transparency International 2015). While corruption indices by no means directly capture the particular dynamics occurring within development and climate programs, they do indicate some sort of entrenched problem, and it is striking that Bangladesh ranks significantly lower despite having a much higher per capita income than Ethiopia.

Mahmud and Prowse (2012, p. 934) identify eight type of corruption prevalent to varying extents within Bangladesh’s climate policy system: bribery, wage/asset stripping; extortion; fraud; favouritism/nepotism/patronage; refusal/negligence in service provision; influence peddling; and procurement irregularities. Iftekharuzzaman (2009, cited in Mahmud and Prowse) find that the extractive effect of corruption is regressive—low-income households lose a greater percentage of income than medium-income households, and the latter lose a greater percentage of income to corruption than to high-income households. Although a survey conducted by Mahmud and Prowse (2012) find that higher-income households report losing a greater percentage of income to corruption in those forms of corruption that occurred most frequently, even the loss of a lower percentage of income is likely to have much more severe consequences on lower-income households, given that such losses routinely create ongoing liabilities from, for example, distress sales of assets and falling into debt traps. Mahmud and Prowse (2012) report that “Post-disaster relief interventions are particularly prone to corruption because of the swift, substantial flow of resources required to meet the pressing needs of affected households” (p. 937) and that “Overall, recovery relief after Aila suffered from varied levels of corruption: low levels of bribery in the Tk 5000 programme; very high levels of asset stripping by union

*parishad* chairmen and members in the food distribution programme; and high levels of wage stripping and delayed/uncertain payment, as well as other irregularities, in the public works programme” (p. 941).

To address these interrelated targeting and corruption issues, Coirolo et al. (2013, p. 85-86) suggest a more decentralized approach to funds allocation (although they admit certain concerns that this path would raise as well) and a greater role for local authorities and especially participatory community institutions in the targeting and allocation process.

## **Long-Term Climate Change Adaptation and Social Resilience**

### ***Policy Outcomes***

Unlike short term relief, recent studies suggest that Bangladesh has been far more successful than has Ethiopia at moving toward longer term climate change adaptation. Beyond access to safety nets, patterns already underway suggest that food security under climate change will necessitate increased livelihood diversification, particularly for households dependent on agriculture (Wright, Kristjanson and Bhatta 2012). While both countries have expressed a strong awareness of the perils of climate change and significant political will in addressing it, Bangladesh seems to be taking much larger steps toward preparing for large-scale changes in agricultural systems and mass migrations than does Ethiopia. Although this difference may in part be a function of the fact that Ethiopia has lower per capita income than does Bangladesh, some of the evidence below suggests that there are political barriers to long-term adaptation in Ethiopia that go beyond the country’s lack of funds.

Despite the major shortcomings discussed above that Bangladesh has encountered with regard to short-term safety net policies, several approaches taken within the country toward longer-term adaptation have been widely heralded. Bangladesh is a pioneer in many areas of climate-smart agriculture. The country “leads the way on agricultural research programs related to drought and saline tolerant rice varieties, seen as key adaptation options” (Ayers et al. 2014, p. 46), and has further seen the development of creative livelihood strategies for climate change-affected areas. Bangladesh seems to have both mainstreamed climate into the development process and development into the climate process: “the BCCSAP is widely regarded as a comprehensive and integrated example of adaptation planning...For example, the plan does not only look at the impacts of climate change on agriculture, but also the role of agriculture and food security in building longer-term adaptive capacity to climate change impacts. This is also exemplified by the prioritization of pillars of social protection and health.” (Ayers et al. 2014, p. 47).

Ethiopia on the other hand is widely seen as having lagged in longer term livelihood adaptation strategies. Its social policy regime is seen as being too centered around emergency response, without taking a longer term approach that takes climate models into account and without sufficiently mainstreaming climate change realities into its overarching development strategy (Conway and Schipper 2011). A growing body of research has shown that

“even though the PSNP has been effective in protecting people from hunger, it has not brought any lasting impact on promoting livelihoods (Devereux et al. 2008; Devereux and Guenther 2009; Gilligan et al. 2009; Andersson et al 2011); for instance, Andersson et al. (2011) found that participation in the PSNP does not appear to help households when they are faced with major climatic shocks, since households tend to sell livestock because of a lack of alternative income sources” (Weldegebriel and Prowse 2013, p. 49-50).

The country’s social protection policy regime does explicitly aim to include medium- and long-term provisions in addition to creating climate-responsive safety nets. For instance, “a Climate Smart Initiative is planned for the [PSNP] and Household Asset Building Programme (HABP), to help people covered by these programmes manage risks relating to climate change” (Béné et al. 2014, p. 4), and Béné et al (2012) find that even the safety net PSNP transfers described above can help households to manage shocks. Nonetheless, the fact that even small transfers have been helpful in managing the short term fallout from disasters does not mean that it constitutes long term adaptation to climate change. As Béné and collaborators themselves point out, “the programme may not be robust enough to protect the poorest from severe climate shocks” (2014, p. 16; 2012).

Given the overall relative success of the PSNP, why has it not significantly encouraged adaptive capacity? Although primarily a social protection program, the PSNP is ostensibly guided by climate sensitivity and the overall social protection program of which it is a part certainly claims the goal of long term adaptation. However, a solid short-term safety net program can hypothetically encourage longer term adaptation, even if the program itself only provides for the provision of immediate needs. A solid safety net can preempt distress sales of assets, which otherwise can be accumulated for investments in new livelihood projects. A stronger sense of security may also encourage more investment in medium and long term adaptive capacity by reducing the amount of resources a household must keep at its disposal in case of emergencies. However, whether these dynamics actually occur in practice depend on a variety of contextual factors, including the range of complementary resources and livelihood opportunities that a household has at its disposal. Thus the effect of short term safety nets on longer term capacity is ultimately an empirical question.

Weldegebriel and Prowse (2013) study the effects of participation in the PSNP on longer term adaptation (more or less) directly, operationalizing successful adaptation as diversification toward non-agricultural, non-resource-dependent income sources. As the authors themselves admit, this outcome variable presents a rough measure at best of what most observers mean by the term “adaptation.” For instance, a more holistic operationalization of adaptation would include diversification into climate-smart agricultural practices. However, given data limitations, not to mention the difficulty of turning such complex phenomena as climate adaptation into interpretable coefficients, Weldegebriel and Prowse’s study is quite valuable. They find that the PSNP not only fails to encourage adaptation and to increase investment in agriculture, but actually leads to maladaptation by encouraging households to diversify into non-agricultural livelihood sources that are resource-dependent and thus not “adaptive.” They thus conclude, “Our results concur with the argument that the PSNP may protect households in the short term, but is not building resilience to risks in the longer term” (p. 50).

### ***Political Roots***

Why has Bangladesh been so much more successful at taking early steps toward long-term climate adaptation than has Ethiopia? While a much more detailed examination would be required to flesh out the intricate structural differences, contingencies, and other factors that no doubt contribute to this divergence this section focuses on two important factors: climate mainstreaming and the differences in political regimes.

Although the governments of both country cases acknowledge the need to centrally incorporate climate change within the development process, the Bangladeshi government has thus far integrated climate change into development planning and governance to a greater extent than has Ethiopia. This is evidenced by the fact that, while both countries have a nodal climate change agency, as essentially required for participation within the UNFCCC (MoEF for Bangladesh and EPA for Ethiopia), Bangladesh also has units within each of the agencies relevant to development specifically responsible for incorporating climate change considerations.

On the other hand, in Ethiopia currently only the Ministry of Agriculture has a climate change unit, although plans are ostensibly underway to create these units within other relevant ministries (Nzuma et al. 2014, p. 16). And having the EPA as the key nodal agency is an improvement over the EPA’s predecessor, the National Meteorological Agency, which had an even more technocratic position within government than does EPA (Bewket et al. 2015, p. 42). Despite the Growth and Transformation Plan’s (now replaced by the GTPII) stated intent to mainstream climate change (Government of Ethiopia

2016 GTP II; GTP I), effective integration has yet to occur (Bewket et al. 2015, p. 39). Ethiopia's Agriculture Sector Policy and Investment Framework also pays lip service to long-term adaptation, but its specific strategic objectives are dominated by increased agricultural production with little in the way of specific climate adaptation strategies for agriculture (Bewket et al. 2013, p. 39), while Bangladesh's key agricultural planning documents take more climate change into account much more extensively (Ayers et al. 2014). As of yet, only the EPA and the Disaster Prevention and Preparedness Commission formulate climate change policies (Nzuma et al. 2014, p. 23). In a particularly striking example of the problems inherent in this lack of integration, Ethiopia had yet to begin implementation of any of eleven NAPA projects granted funding more than a half decade after the NAPA's submission (Nyasimi et al. 2013, p. 29). Ethiopia does mention plans for the promotion of multiple cropping strategies and better coping approaches to manage climate variability, for example by expanding irrigation and improving water management (Nyasimi et al. 2013, p. 15), and has projects going on relating to disease resistant crops, seasonal climate forecasting, and weather-based insurance (p. 39).. Ethiopia does not have an effective land administration system, although it ostensibly plans to develop one (Nyasimi et al. 2013, p. 37) and control over land remains politicized and deeply inequitably (Lavers 2013).

Lavers (2013), although not centrally concerned with climate change, takes the critique of the Ethiopian state's lack of long-term adaptation perhaps the farthest. He argues that the EPRDF regime's central goal is to avoid mass rural-urban migration or other forms of rapid social change, as this could upset the stability on which the regime depends. The PSNP essentially represents the government's best efforts to provide subsistence without undertaking more ambitious realignments.

Although Ethiopia's PSNP is fairly effective at ensuring short-term food security, doing so will become an increasingly uphill task as climate change takes its toll, increasing the need for longer term climate planning. Without long-term adaptation, "there is likely to be a decrease in the total area suitable for crop production in the country" (Bewket et al. 2015, p. 10). While the PSNP has managed to keep millions afloat, it does so just barely, and it is difficult to imagine the PSNP remaining effective in the face of severe climate shocks (Béné et al. 2012) without substantial reform. This is true as well for more ad hoc local adaptation efforts. Bewket et al. 2013, p. 47) report that

"Despite the range of local adaptive responses used by the farmers and the policies and institutions in place, improving agricultural production and achieving food security have increasingly been constrained by climate change. This indicates local coping and adaptive capacities are overwhelmed by the extent of climate change effects. There is therefore the need for effective implementation of planned adaptation interventions as outlined in the policy and strategy documents and for building climate resilience in the agriculture, natural resources and food security sectors" (p. 47).

Finally, separate from the EPRDF's political strategy but related to the top-down nature of the Ethiopian state, Bangladesh seems to have been more successful at moving toward long-term adaptation in part as a result of the country's embrace of community-based adaptation. As discussed above, although much of Bangladesh's post-independence political history has been marred by alternating authoritarianism and political chaos, civil society has managed to carve out a more or less protected place for itself within the development sector. This tendency is perhaps best epitomized by BRAC, which quietly worked for decades to drastically cut infant mortality, improve education for both genders, and greatly enhance a variety of other social development indicators, even as the state oscillated between megalomaniac military leaders, power-hungry bureaucrats, and corrupt politicians. And the situation has been even more favorable for Bangladesh's development civil society sector since the onset of more or less stable parliamentary rule.

### **Discussion and Conclusions**

While many would argue that a strong civil society that can provide a voice for bottom-up demands is necessary for good governance of any kind, I suggest here that the bottom-up approach is *more* important for long-term climate adaptation than it is for short-term climate-sensitive safety nets (I emphasize that this comparison is relative and not absolute—bottom-up accountability is likely necessary for both to varying extents depending on context). Although a lack of bottom-up accountability in safety net provisions can doubtlessly cripple such a system by allowing for poor implementation, corruption, mis-targeting, etc., if a state leadership wants to get emergency resources to certain populations and it has a modicum of state capacity, then it should be able to do so. This is evident in the Ethiopian state's relatively substantial success in getting food and cash (albeit in modest quantities) to disaster victims, despite a lack of substantial bottom-up accountability. Whereas Ethiopia's experience suggests that robust civic life and the bottom-up accountability that come with it are not necessary for short-term safety net success, the case of Bangladesh shows that it is also not sufficient. Despite its flourishing and effective civil society, Bangladesh was unable to ensure success in this realm.

However, providing immediate safety-net security during lean seasons and following disasters is not the same as encouraging the development of livelihoods and lifestyles in a particular (hopefully climate-smart) direction. As social scientists have long showed, even well-meaning schemes for significant life adjustments can cause severe unintended consequences, given the enormous complexities of social systems and livelihood patterns, among other factors (Scott 1998). Convincing people to change their livelihood activities, including adopting new agricultural practices and crops,

taking on new types of work is much more difficult than directly giving them these resources, even when these resources come at the cost of hard labor for very low wages. And even if a state or agency were to convince a community to adopt new, ostensibly climate-smart practices, there is of course no guarantee that these options will be the most effective or equitable in the long run, or that they will even be better than the counterfactual scenario of their absence.

A significant part of Bangladesh's success seems to arise from the proliferation of community-based adaptations that have arisen as a result of a flourishing grassroots civil society. Many of the most innovative initiatives seem to arise from community-based organizations and NGOs rather than state agencies. Examples abound. In one case, in "Gaibandha district...The international NGO Practical Action is working with local communities...to develop ways that farmers can grow food on flooded land, using a process of community-led identification and prioritization of natural resource management options and technologies. Detailed consultation meetings, in addition to assessments of the needs, skills, assets, and capacities of the community through household surveys led to participatory action plans of development, which identified a number of options for tailoring existing and new technologies to meet the needs of the community" (Ayers and Forsyth, p. 26). Innovative solutions have included "floating gardens" atop rafts and a variety of hydroponic schemes. In previously flooded areas affected by salinity, local organizations have pioneered new models of freshwater containers on raised platforms (Ayers and Forsyth). Such schemes by no means come close to making up for livelihoods lost as a result of climate change, but they can lead to income-supplementing practices that can increase food security for longer than one-time post-disaster disbursements.

Bangladesh's relative success at bottom-up, longer term adaptation strategies by no means implies that its ASP policy regime is always successful or always bottom-up by any stretch of the imagination. However, some of the more prominent exceptions seem to prove the rule in that (relative) failures seem to have lacked channels of bottom-up influence. For example, the first NAPA drafting process involved only very limited consultation with target populations, and the result was that the one plan that was implemented was not widely adopted and not widely considered a success. Furthermore, the fact that it was such a top-down practice arose in part from the practices of donors, since the latter did not provide sufficiently for non-expert consultations in funding or time frames (Alam et al. 2011; Ayers 2011). Bangladesh could likely improve its ASP even further by opening more policy design and implementation tasks to bottom-up formation, and especially by building "middle-range" institutions to bridge the gap between community-level decisions and national-level policy.

Although preliminary, this discussion suggests the utility of a comparative-historical approach to studying social protection under climate change for drawing empirically-grounded and policy-relevant conclusions. Future research within this research program and related ones will likely provide further insights on which adaptive social protection interventions are most effective and under which circumstances.

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