

INSTITUTIONAL AND ORGANIZATIONAL CAPACITIES FOR ADAPTING TO CLIMATE CHANGE IN THE LEAST DEVELOPING COUNTRIES

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1. INTRODUCTION

How can the least developed countries (LDCs) deal with the effects of global climate change, to which they contributed little and over which they have little control? With many analyses now concluding that some degree of climate change is all but inevitable, attention must shift increasingly to adaptation measures but in this task the LDCs are particularly challenged. The adaptation and resilience literature generally agrees that adaptation capabilities are a function of both the intensity of the impacts of climate change on the community and the resources it can marshal to respond to them. Resource constraints, particularly but not just of the financial kind, are therefore the major limiting factor on the LDCs' response to climate change. What makes the resource constraints even more pernicious is the widespread belief that local institutions are unprepared to even absorb large financial transfers from overseas and so potential donors are reluctant to ramp up their assistance programs or to channel their funds to and through the national and local governments. This leaves aid-receiving countries in an institutional vulnerability Catch-22: not having stronger institutions precludes them from receiving the very funds which they need to strengthen their governing institutions.

How weak are institutional capacities and in which ways are they weak? This question is critical in properly addressing rather than merely proselytizing about institutional needs. Evaluating the institutional capacities of developing countries to facilitate adaptation to climate change requires a critical theoretically-informed empirical analysis of organizational capabilities, governance structures and the political economy of climate change adaptation practices and potential. In this paper, we analyze these capacities in the case of Nepal, which can be considered in many ways to be an archetypical LDC with problems associated with internal socio-ethnic cleavages, weak governments, political conflict and uncertainty, severe organizational constraints, and of course, widespread poverty. In this conference paper, we report on our main findings related to analyzing the organizational capacity of government structures in Nepal for dealing with issues related to climate change adaptation. Our full research program, which is currently ongoing, investigates broader institutional analysis and includes assessment at the village level.

2. INVESTIGATING INSTITUTIONAL AND ORGANIZATIONAL CAPACITIES

Methodology

Our focus is on investigating the institutional setting because it sets the policy context in which adaptation decisions are or are not taken. Our methodology incorporates a content analysis of several of the policy documents most relevant to climate change adaptation complemented by interviews with various critical actors in the corresponding institutional settings. The documents we selected for review were, in addition to the National Adaptation Program of Action (NAPA) and Local Adaptation Plan of Action (LAPA), the National Biodiversity Strategy and Action Plan and the Forest Sector Strategy. As part of the content analysis, we first listed explicit statements regarding (a) climate change in general and, more importantly (b) adaptation to climate change. We then enumerated the actions and instruments listed in the policies. At the third stage, we discussed the organizational capacities and institutional capacities required to execute them and realize the *formal written policy intent*. We state this in italics to emphasize that for the national and local level actors, their intents (preferences) might be quite different from that which is adopted as the written policies, for a variety of factors which we discuss in the section on the political economy of climate policies in the LDCs.

In our research, we focus on three action arenas: village development, agriculture and forestry. The reason for this is that adaptation capacity is a function of both the intensity of the impacts caused by climate change and the resources to which a community has access and entitlement. Local development therefore is a key issue in increasing adaptive capacities, and in this area the relevant government organizations are the Village Development Committee (VDC), the Ministry of Agriculture and Rural Development (MARD) and the Ministry of Forests and Soil Conservation (MFSC). In each of these ministries and departments, we conducted several key informant interviews at all levels of the organization, from the head offices to the field outposts. We also conducted long open-ended interviews in the villages.

As indicated in the NAPA and LAPA, several other ministries and departments are also relevant for a more complete approach to climate change management in Nepal, but such a comprehensive treatment is to some extent duplicative and to some extent also beyond the scope of our research program.

The Institutional Approach

North's classic definition that institutions are *the rules of the game* is a pithily useful statement about the concept. Rules in turn are humanly devised constraints on behavior, a structure of incentives (North 1990), and shared understandings about which actions are required, prohibited and permitted (Ostrom 2011) and, we would add, condoned. Rules serve many purposes, including to achieve order and predictability, serve as cognitive shortcuts for action, and also to justify actions. Rules are complemented by norms, and while compliance is often voluntary, rules ultimately need to be enforced by human agents (Ostrom 1980).

At the outset, it is necessary to distinguish between institutions and organizations, terms which many people use interchangeably. Some (e.g., Egberg 2003:118) claim that all institutions are organizations,

but this is confusing and unhelpful. To illustrate, it is more sensible to think of the game of football (with all its rules and norms) as an institution, and the individual teams as organizations (though I suppose that some diehard fans would consider their own team to be an institution steeped in tradition and culture). Similarly, the Hindu caste system is an institution and cannot be said to be also an organization. The dictionary definition of organization as a group of people with a particular purpose helps in clarifying this confusing relationship: organizations are grouped around interests, and institutions are grouped around rules.

If we keep institutions and organizations and organizations well-separated conceptually, then it becomes easier to understand how institutions determine outcomes and also to not confuse institutional and organizational strengthening or capacity building.

In practice, we found the most heavily cited framework for such an analysis—the Institutional Analysis and Design (IAD) framework developed by Ostrom and her colleagues—to be useful for conceptualizing our analysis but unwieldy for designing and organizing our field research. Ostrom (2011:9) herself admitted that key components of the IAD framework “confused many readers.” The IAD presents a seven-step analytic process with comprehensive sets of questions, but designing a survey instrument following those specific sets of questions is awkward and our own review of papers that begin with the IAD in their analytic framework found that rarely did the actual research closely follow or present the findings in the terms prescribed by IAD.

To simplify the research approach, we identified six dimensions of individual, institutional and organizational attributes that permit both research and analytic clarity and ease of organization of the research process. These dimensions are: Knowledge, Attitudes, Processes (or Protocols), Incentives, Resources, and Environment. These six dimensions are neither mutually exclusive nor exhaustive, but they do represent the most important components of institutional and organizational capacity. We should also stress that there are substantial feedback loops among these categories.

(a) Knowledge

Skills are based on knowledge, which consists of several components and aspects. Knowledge relates to the ability to recognize information and to match and map it to appropriate categories and patterns. Skill is the speed and accuracy with which a subject can solve a problem by rapidly recognizing the pattern it represents and then deploying the appropriate response.

In rational choice approaches, game theory provides most of the underlying theoretical mechanics upon which institutional analysis is constructed. The formal mathematics of game theory, however, can only be applied to highly restricted and stylized situations. When the constraints on behavior are as loose as they are in most real-world situations, then the rules structures of institutions do not neatly map into unique solutions. The outcomes of these interactions then depend to a great extent upon the skills which different actors bring to the action arena. This element of skill endowment is missing in most analyses of institutional performance which instead explicitly assume even require, that for equilibrium to be obtained, each player must employ the best conceivable strategy. Here rules and strategies become indistinguishable and each set of rules is assumed to map directly into a desired outcome. More

sophisticated approaches, however clearly distinguish between rules and strategies. Rules are sets of choices and actions which are either permitted or prohibited whereas strategies are the mental maps devised by actors which they think will yield the best result for them.

How institutions and organizations perform, and what outcomes are obtained, depends substantially on the level and type of knowledge actors are endowed with, and further, changes in the levels of knowledge has the potential to change outcomes even without changing the basic framework of the institution.

(b) Attitudes

Attitudes are the least studied and least understood of the different dimensions which affect behavior, While the study of attitudes held early promise as a device to predict and explain behavior, it gradually faded from the scene as the research community was unable to come to agreement on basic definitional issues such as what attitudes are, how they are formed and how they influence behavior (Fishbein & Ajzen 1975). Nevertheless, the ascendancy of behavioral economics has brought attitude back into the gamut of variables relevant to understanding human and organizational behavior. An underlying assumption of institutional analysis is that actors have preferences (which in the rational choice approach are exogenously determined) and actors seek to realize there preferences. Kahneman et.al. (200x), after performing a series of experiments deconstructing the claims of contingent valuation and willingness-to-pay studies, concluded that people have *attitudes* rather than preferences especially when it comes to public concerns. While the dictionary defines attitude broadly as “a settled way of thinking or feeling about someone or something, typically one that is reflected in a person’s behavior”, in this case our social psychology approach attributes to it an emotional quality whereby a particular entity or object evokes a degree of positive or negative affection.

Attitudes can affect choice, and indeed can be manipulated. Kahneman et.al. (200x) noted that because the objects of attitudes are mental representations and not objective state of affairs, the valuation that a person gives to an object depends on how the object is presented and how the choice around it is framed. The same object, they explain, if it is presented as a part of different sets, can obtain different valuations which derive from the attitude that a subject has towards the set. They claimed that calculating the economic value of environmental species or services is futile using CV or WTP methodologies because the monetary value attributed to, say, a coral reef, other than perhaps derived from its ability to attract tourist dollars, is more an expression of the strength of a positive feeling towards a species, what they call a positive affective valuation, than an actual value in any economic sense of the term.

Attitudes also govern institutional performance by affecting how subjects operationalize policy. Just as there are rules in use, which may be quite different from the rules in place, policies may be implemented quite differently from how they are stated in the relevant documents, especially at the local level in developing countries. So, policy practice may diverge significantly from policy intent, or their formal written content. In developing countries, because policies are often drafted by outsiders, their intent is quite different from and incongruous to the interests of those who must implement them.

Interpretation of the policy, and the strategic gaming around it, is part and parcel of the policy process. Internal policy tensions are also often present, such as in forest policies between trying to protect forest cover and making the forest yield economic benefits. Because of this, policies have the scope for discretion in implementation and attitude determines how much and in which direction discretion will be exercised.

As with knowledge, actor preferences and attitudes are not static.

(c) Processes

The systems of processes and protocols in an organization give us an idea about general capabilities. These capabilities are not necessarily climate change specific, but as they are important to understanding how well the organizations are prepared to perform their core tasks, they also help us to understand how the organization will approach climate change. Within this set of issues are included leadership, planning structures, and communication and outreach with the main stakeholders.

(d) Incentives

A core argument about studying rules and norms is that they establish the framework of incentives which guide the choice and behavior of actors, and thus contribute to determining institutional outcomes. The strength, structure, and scaling of incentives allow for behavior to be modulated in ways which can contribute to achieving broader societal goals. While the general approach to how incentives work is a focus of much academic or practitioner debate, the calibration of incentives is consistently an issue which confounds policymakers and administrators. Weakly calibrated incentives are ineffectual, those too strong are wasteful.

(e) Resources

Organizational theorists have posited that the level of conflict in an organization is proportional to the resource limitations confronting it. This is, of course, intuitive as a larger number of interests are competing for the same resources. Even though resource-constrained organizations have more of an incentive to innovate, they are less able to dedicate resources to the innovation task. Meanwhile, organizations with more slack resources—actual or potential resources in excess of those minimally required for execution of its core functions—are able to invest more in innovation and thus adapt successfully to internal pressures for adjustment or external pressures for change, as well as to initiate changes in strategy with respect to the external environment (Borgueous 1981). Slack resources sometimes also take the form of “surge resources” which prevents a tightly wound organization from rupturing in the face of a surge of activity.

In addition to the innovation function, resource availability also affects the enforcement function of institutions. A fundamental concern of institutional analysis is the enforceability of rules and how this affects the predictability of actors’ decisions and strategies. Rules may be auto-enforcing because they are structured in ways that actors find it in their own interest to follow them, but often they have to be enforced coercively, in which case resources are required for detection and enforcement of rules.

Lacking enforcement credibility means that actors' strategies will differ commensurately and the rules in use will deviate, often substantially, from the formal written rules. The predictability of formally established rules and stability get reduced if resource constraints are more severe because the payoffs for cheating become higher and the penalties effectively lower.

Even if the right framework of rules is discovered, establishing institutions is an expensive proposition. Bringing a community together around a set of resources management rules and systems requires a gestational expenditure. Members have to be trained in recognizing and understanding how the rules/institutions work, they must learn and practice exercising their roles, their participation is in itself costly to them, and indeed, if the marginal benefits derived participation in the institution are not adequate, their interest will flag. Institutions have to be cost effective, which is another way of saying that overt or structural institutional isomorphism is unlikely to lead to functional institutional isomorphism in the presence of severe resource constraints.

(f) Environment

The institutional environment can be of two principal types: the permissive or the prohibitive. In permissive environments, any action which is not explicitly prohibited is allowed whereas in prohibitive environments any action which is not explicitly authorized is disallowed. Elster (1989) terms these as institutions with a "principle of legality" and "positive conception of the law" respectively. This approach sets up the community or individual and the state in dichotomous and opposing groups because in the former (permissive) condition, action by the state must be explicitly authorized by law while in the latter (prohibitive) condition the state is barred from acting in a particular situation only if a law exists specifically prohibiting it from doing so. It can be easily deduced from these definitions that the permissive environment allows for greater human creativity and agency while the prohibitive environment more tightly circumscribes action. Because human agency is less circumscribed, actors in permissive institutional environments are more likely to pursue what March & Olsen termed "the logic of consequentiality" by which actors make the rational choice to pursue the strategies most likely to result in an end desired by them. Others have described this as an environment where calculus dominates. On the other hand, when the institutional environment is prohibitive, as can be deduced to be the case in more traditional societies, March & Olsen say that a "logic of appropriateness" operates. Here culture dominates over calculus because actors are expected to conform more to norms than to act in their interests. The degree of permissiveness, or at least the perceptions of actors of permissiveness, will thus influence the range of acceptable means and in doing so the creativity of the system.

3. CLIMATE POLICIES AND PLANNING IN NEPAL

Our setting is Nepal, a Himalayan country sandwiched between Tibet and India in an elongated sloping rectangle about 800 km long and 200 km wide, divided roughly evenly between the high mountains, middle hills and the plains forests. The country is vulnerable to climate change, but the research on potential impacts is still ongoing and the interim findings have not yet been scaled down to local level impacts.

Politics and Administration

The country has been politically unstable for the better part of the last 100 years which is reflected partly by the fact that in this period the country has had eight different constitutions or national governing arrangements. A two decade long insurgent campaign by Communist guerillas ended in 2006 with a new Parliament which abolished the monarchy in 2008. The Nepalese Constituent Assembly, which is the country's current Parliament, greatly expanded in its current version to 601 members, is dominated by three political parties: The Nepalese Congress (the country's oldest party which was established in 1947 and represents the middle class elites) is the largest party with 196 seats. Two Communist parties, the moderate Communist Party of Nepal (Unified Marxist-Leninist) has 175 seats while the more militant Unified Communist Party of Nepal (Maoist) which led the insurgency has 80 seats.

Administratively, the country was divided into 5 developmental zones drawn vertically from east to west but the Constitution just adopted in 2015 has now divided the country along ethnic and geographic lines into 6 provinces. This new division has reignited simmering social tensions and catalyzed fresh and sometimes violent clashes between the Terai-inhabiting *madhesis* and the traditional mountain elites.

The entire administrative structure consists of nine levels, with the elected minister and state minister at the top followed by the bureaucracy, which is led by a Secretary-level appointment. The first two bureaucratic levels (down to the level of Joint Secretary) are based in Kathmandu. The district offices are headed by an Under Secretary, who is served by two lower levels of gazetted (executive or managerial cadre who have the legal authority of being official representatives of the state) officers and below them two levels of non-gazetted officials. At the lowest rung are locally appointed peons, such as the Forest Guard in the case of the Ministry of Forests and Soil Conservation.

Planning and Policies for Climate Change Adaptation in Nepal

Nepal's climate change policies emerge from the United Nation's call for developing countries to prepare National Adaptation Programs of Action (NAPAs). These are the first steps in organizing efforts to analyze the potential impacts of climate change on the environment, economy and communities and to then develop policy responses to tackle these impacts. The next steps include scaling down the NAPAs to the local level, and then developing context-specific policies and actions, preferably with levels of detail that are sufficient for local administrators to develop and execute timely and appropriate interventions. Taken together, these action plans intend to provide a comprehensive approach, a road map, to tackling climate change.

The Nepalese Ministry of Science Technology and the Environment released its NAPA in 2010 and Local Adaptation Plans of Action (LAPA) Manual in 2011. These documents brought together various perspectives on climate change impacts and concluded with long lists of actions to be undertaken in the rather short-term to prepare the country adequately. Nepal's NAPA and LAPA have been well-received in the epistemic community that has grown around climate change issues in the country, with the general feeling that the plans are participatory and generally comprehensive. But are they implementable?

We analyzed several of the principal policy documents which are relevant to Nepal's efforts to adapt to climate change. One of these is the new Forest Sector Strategy which materially influences climate issues. The overall goal of the Strategy, while not mentioning climate change, clearly emphasizes the role of forests in generating locally inclusive incomes, thereby shifting, at least in rhetoric, the emphasis from a conservation orientation to a development approach. The adaptation perspective is one of the five clearly-identified outcomes of the Forest Sector Strategy as it states the achievement of a "climate resilient society and forest eco-system". There is an entire thematic area "responding to Climate change" and its stated objective "to strengthen the climate resilience of people communities, forests, and ecosystems and mitigate global climate change through REDD+ approaches." The possibility of using future carbon credits under an expanded REDD+ framework serves as much to provide incentives for forest protection as it does to create a stream of income for the country and for forest communities. This adaptation component of increasing funding is more relevant and interesting for the policymakers than the mitigation aspect of REDD programs.

Another is the LAPA framework adopted in Nepal places the responsibility to develop adaptation plans at the local level itself. Local government does not figure as the central actor in this process; instead, civic institutions such as NGOs and Cooperatives are supposed to do most of the work in terms of developing capacity and projects at the local level while the major responsibility attributed to local and higher level administrative structures are to gather community priorities and integrate them into various planning processes such as the Sectoral Plan Formulation Committee and the Integrated Plan Formulation Committees. At the national level, the responsibilities are mainly to formulate policy, develop the necessary legal framework, capacity development and monitor projects. The NAPA itself indicates that 80 percent of climate change adaptation funds would be channeled to the VDCs, which of course means a large influx of funds. There are, of course, few if any local level NGOs that can take on this responsibility.

The Climate Change Policy of 2011 contains a list of action items including the establishment of a Climate Change Center, initiating LAPAs, preparation of a national strategy for carbon trade, formulation of a low-carbon and climate resilient economic development strategy, and the development of a reliable impact forecasting system. A Climate Change Council responsible for managing and coordinating various programs at the political level was also mandated and one of its main tasks is to approve the annual Climate Change Fund expenditures. All of these had initial deadlines between 2012 and 2013. Most have been breached.

The National Biodiversity Strategy and Action Plan (2014-2024) aims mitigate the impacts of climate change on biodiversity and to promote the resilience of ecosystems and human communities. Its specific projects include developing environmental monitoring programs, guidelines for integrating biodiversity concerns in climate change adaptation projects, promoting environmentally-friendly farming systems such as organic farming, implementing PES and REDD+ programs, improving connectivity of eco-systems by building north-south corridors, and promoting the development and implementation of climate change adaptation plans by forest user groups.

But when we turn to analyzing the institutional and organizational arrangements for achieving this goal, we find several areas of concern. The MFSC is identified as the key actor and its role is to enable-design policies and procedures, provide technical services, facilitate, coordinate, plan and budget. If we are to contrast these attributed responsibilities with the difficult the Ministry currently has in executing just its core tasks, it becomes quite clear that this is more an aspirational than a realistic perspective which is being proffered. At the local level the roles and responsibilities are also clearly delineated. According to the Forest Sector Strategy document, the local government administration (District Development Committee and Village Development Committee) is responsible for identifying climate services, protect while natural resources at to car levels and contribute to livelihood and climate change adaptation. The role of Civil Society Organizations is correctly defined as one of advocacy, but then subsequent sentences leave it rather open to interpretation. Then a catch-all term “development partners” are said to be responsible for support for almost all the objectives of the program: sustainable forest management, environmental conservation and change adaptation, addressing the threats from environmental degradation and climate change contributing to livelihood and climate rest of the people, promoting innovation, skills, capacity and knowledge systems, and sups for the real mad up (i.e. financing of practices. Interestingly, even institutionalizing the process is a responsibility attributed to these partners). Given the long laundry list of objectives requirements, no attempt has been made to identify even the level of orisons required let alone how to obtain them. Nor does the Forest Sector Strategy address specific strategies for human resource development and management.

Thus we see that large scale interventions are required in several sectors, the most important including forests and agriculture but these interventions have been stated without considering the capacity needs of the organizations which are nominally in charge of implementing them. Indeed, the gap between the capacities needed to implement these plans and what Nepalese institutions are currently capable of doing has not been systematically analyzed.

4. FINDINGS & ANALYSIS

We now present the findings based on our initial set of interviews. We should note here that our research program is a few months behind schedule because of the earthquake that occurred earlier this year in Nepal and the because of the current unrest in the country. While we had at this stage hoped to have included the very senior as well as more community voices to this analysis, at the present time, the research presents our findings from mid to low level administrative staff and about a third of the rural community respondents we aimed to survey.

Knowledge

Knowledge about climate change and its potential impacts is high among all the respondents. Mid level and junior public officials from all three branches of government as well as villagers had accurately conceptualized the effects of climate change and could list its impacts in terms of the issues most important to them. Sometimes, however, they conflated climate change with general environmental problems.

Knowledge about climate change adaptation was, however, quite low. When asked how the local community could prepare and deal with the impacts of climate change, most respondents offered measures which would actually serve to mitigate climate change rather than help the community adapt. For example, some advocated using less and cleaner energy. It was only when the respondents were prompted with specific adaptation activities—infrastructure development, outmigration—did they indicate agreement and understating. So far, none independently have offered examples of what could be done for adapting to climate change at the local level. We do not find this surprising if we consider that the way climate change is packaged and represented in the media, even in developing countries, as a problem of consumption. In this, we surmise, the local media is copying international trends.

Knowledge about development strategies, which also contributes to reducing vulnerability, was similarly inadequate and one could say to some extent obsolete. For all three groups—forestry, agriculture and local development—development was primarily about increasing production whereas the contemporary literature on local economic development, especially as it treats value chains, is more about access to market and insertion chains. This technical preoccupation with supply side issues rather than the even more demand side management leaves the administration fairly unprepared to execute its developmental responsibility.

Only in the case of agriculture did the respondents point specifically to agricultural adaptation measures such as changing the seeds and varieties being a recommended for planting.

Attitude

In our research, we wanted to find out more about the attitudes administrators had about climate change preparedness, adaptation and towards working with the community in general. A substantial literature in Nepal and the region claims elite as well as administrative bias, and some researchers have highlighted cases of officials being reluctant to implement policy mandates transferring control over resources to local communities (e.g., Iversen et.al. 2006; Springate-Baginski 2013). In our field level investigations we found negative attitudes towards community control and management to be muted and nuanced. In most cases, forest officials recognized that community management helped protect the forest, especially given that the department was constrained in patrolling but a few also commented that while community management was good for forest protection, the forests themselves were not being managed “scientifically” and that opportunities for virtuous commercial and economic exploitation were being lost. Other responses indicated that forest officials felt that illegal logging was shifting from community managed forests to state forests, and in one case the official even said that community members would take wood from the state forests without authorization while saving their own forests for a later date. Nevertheless, a large majority of the respondents viewed community management and participation as a positive.

In the agricultural sector, the attitudes of the officials and the farmers were mutually predominantly negative. Agricultural officials felt that farmers need to show more initiative and that they would indiscriminately take anything which is offered for free. Farmers meanwhile indicated severe dissatisfaction with the services provided by the agriculture department.

All respondents indicated that in community level meetings, the poor, the Dalits and the women spoke and intervened less, indicating the presence of deeper cultural attitudes.

Processes

We expected to find a diffusion of the typically bureaucratic frustratingly slow process-dominant approaches in our research. However, the comments elicited by questions about paperwork and permissions indicated that the bureaucracy is not so burdensome. While the paperwork required is typical, in most cases staff reported that they could quickly get verbal or written permission or approval if necessary to take up some task.

The area in which the processes were weak was in coordination with other departments. Most respondents indicated that this happened rarely and only at higher levels.

Communication was also weak. In spite of the fact that the NAPA was adopted in 2011, and that the MCCICC was formed under the chairmanship of the Ministry of Environment, little of this has percolated down to the local level, as none of our respondents indicated any ongoing program to address climate change.

Incentives

As we expected, there were few incentives to better performance at the local level. However, we also noted that an important negative incentive was the frustration that field level staff felt about not being able to practice their skills, such as in scientific forest management. In terms of doing something innovative or using their own initiative, almost all staff reported that self satisfaction was the only motivating force.

Resources

Rather than ask respondents directly about how tight the resource situation was, which normally would always elicit complaints about insufficiency, we asked about to what extent they were able to fulfill their designated tasks and what could make them more effective in their tasks. Without, therefore, being prompted about resource sufficiency, the respondents across the three organizations and at all levels reported severe performance constraints due to inadequate resources, often for the most basic tasks. In the forest department, for example, field level staff said that they (i) lacked the instruments to do the most basic of surveys of the areas assigned to them, (ii) did not have transport to do patrolling and did not receive funds to travel to their field sites, (iii) could not do reforestation activities for lack of saplings. The agriculture department staff reported that they did not receive funding sufficient to execute planned programs or to satisfy community demand for subsidies and training projects which were already announced. The local development office did not directly mention a funds shortage, but after being asked about their budgets, we estimated that they received less than \$5 per capita.

Relieving the funding constraint would however still not permit the administration from delivering fully on the range of services to which the population is nominally entitled. When we asked questions about how they allocate their time in their tasks, we found that the actual numbers of staff assigned are too

few for them to perform any but the most basic administrative functions. In the forest department, much of the time of the gazetted staff goes into preparing policy-mandated forest management plans for their jurisdiction. In fact, even the community forest management plans have often to be prepared by the forest department staff. The irony of the situation is that the staff are evaluated on the basis of the quality of the plan and not of its execution. In fact, there are almost never sufficient resources to implement the plan. Nevertheless, because it is an administrative requirement, the preparation of the plans takes precedence over on-the-ground activities. In the case of the agricultural department, the manpower constraint is even greater as training activities which they are required to provide farmers are time intensive. In the case of local development, the Village Development Secretary is the only official and has no support. As such, the Secretary performs most administrative functions like distributing earmarked funds and only the most minimal developmental activities, which consist primarily of calling periodic VDC meetings in which the sparse funds are distributed.

The manpower constraint serves to reinforce local level asymmetries of power, access and entitlement. Because resources are never sufficient to fulfill demand, more active members of the community receive privileged access, even if that is not the intention of the front-line staff. For example, the agricultural staff expects that the farmers should come to them and express strong interest in training because they do not have the time to go to the field and perform social marketing functions. The poorer, less-educated farmers naturally do not have that inclination.

Finally, resource constraints prevent even the most minimal of rules enforcement.

Environment

We find that the institutional environment in Nepal is mostly permissive. For the local actors, even the nominally prohibited actions are tolerated and condoned. For example, infraction of minor incidents of illegal logging or grazing of animals in national forests is not normally punished in the prescribed manner. Local level officials describe routine intervention by local politicians to free the offenders, which actually makes perfect sense as the prescribed punishment of prison for many of the offenses is unsuitable and inappropriate. Resource constraints also contribute to the establishment of a permissive environment as the local administration often does not have the funds to even transport the offender to the court.

In permissive institutional environments, the state is prohibited from acting outside of what is legally specified. We find that this is generally the case in administrative systems in Nepal, and South Asia generally. Administrative staff often complain, in fact, that though a policy states in broad terms what should be achieved, it is often silent on what should be the exact procedures for executing the policy. As a result, staff often flounder in trying to achieve policy intent.

However, we found that for the individual staff member, taking initiative is neither prohibited nor discouraged. They are certainly not encouraged to do so and nor are there any incentives available for success. Most of our respondents, when asked about taking initiatives, replied that only self-satisfaction motivated them. None said that it was discouraged or potentially problematic.

5. DISCUSSION

The institutional requirement is fundamental to understanding the management of climate change policies in Nepal. The NAPA clustered initiatives and projects into nine groups, including agriculture and food security, water, renergy, disaster management, forests and biodiversity, public healthy and urban settlements and infrastructures. The document aspires to integrated management of agriculture, water, forests and biodiversity. At present, however, our interviews revealed that there are little to no higher or lower level integration of management. To the contrary, at the ground level different departments, especially those related to infrastructure and forest and water management are frequently in conflict over plans and developments. The cost of the various programs and schemes under NAPA are rather conservatively estimated at about \$400 million over 5 years (about the price of only one large inter-continental jetliner), which works out to only \$ 80 million annually. But even this amount is significantly out reach for the government which receives a little over \$1 billion annually in aid (about 730 million in grants and 500 million in loans). At the lowest levels of the administration, the budgets are barely sufficient to pay salaries, leaving little to nothing for real interventions.

Given the lack of resources, it is not surprising that there is a corresponding lack of interest at the higher levels of government. While several organizations have been created at the national level. These include a *multi-stakeholder climate change Initiatives Co-ordination Committee (MCCICC)*, a Climate Change Council, (the main political body to coordinate on climate change initiatives, composed of the ministers of all the relevant ministries) these are fairly moribund institutions. For example, although the CCC is the apex political body on climate change issues, its main page was last updated in 2012 and still only highlights the fact that the Council had met four times in 2010.

In terms of the policy cycle, we find that the key stages of policy formulation and design are practically completely outsourced to consultants selected and paid by donors. Implementation is partially outsourced, to a very inadequate degree, to international local NGOs. Moreover, overall policy monitoring and evaluation are rarely given much attention in a systemic manner, rather the focus is on the discreet project and the focus is on outputs rather than outcomes.

The near-complete dependence of the Government of Nepal is illustrated by the fact that almost all reports issued by it are prepared by consultants paid by donors. For example, a 2013 report on community forestry issued (and copyrighted) by the Ministry of Forests and Soil Conservation comes with the standard disclaimer that the views expressed are those of the consultants and not those of either the Ministry or of the donors.

It could be argued, on the one hand, that identifying needed policy actions brings into sharp relief the capacity gap with exists and in doing so provides also a road map for capacity development. However, on the other hand, it could also be argued that if the capacity gap is too large, or if the required resources for filling this gap are unlikely to be forthcoming, then the policy is in danger of merely gathering dust and worse yet, more promising and realistic policy options are not likely to be developed or implemented.

Capacities are of two kinds: organizational and systemic. They are also relevant to different phases. Unbalanced capacities, for example, by pulling in outside experts at one stage of the process [policy formulation and evaluation] while relying only on local actors and funding at other stages [implementation] leads to unbalanced policy proposals and prognoses. With the aid industry stuck in the mode of developing institutions first, much money is being spent on studies and capacity building training exercise while the recipient governments wait for more hard contributions. Our analysis indicates that the kinds of soft capacity building exercises are unlikely to solve the problem of institutional capacity. Greater skills are never unwelcome, but given the current manpower and budgetary constraints, we cannot expect these enhanced skills will ever be rolled out. Indeed, current skill levels are already going a waste and leading to much frustration among the field staff.

Applying these considerations to our case, we make the following observations: What is the potential for Nepal to increase the economic value of its rural production structures and to distribute these in more equitable ways that would enhance the resilience of local communities? The answers are complex and require the national administrative structures to engage intellectually with the challenges. This engagement is, unfortunately, does not appear likely.

6. CONCLUSIONS

Our conclusions are not comforting. We have identified several and critical problems with climate change management, not just in the governance structures of the country but also in those of the global actors that are investing heavily in addressing climate change. However, institutional rules are not immutable and in any case actors often have wide scope to interpret the formal written rules. Their actions and chosen strategies can be modified by changing the calculus of the situation through targeted interventions. Each of the six parameters we researched in this paper is a potential point of intervention. The most significant finding from evaluation of existing institutional capacities indicates that there should be some sort of balance in attention paid to intervention in the various parameters. For example, investing too much in the knowledge parameter while not addressing material resource constraints, or changing protocols without changing incentive structures, will not deliver the changes desired in performance and outcomes. Outside intervenors should be conscious that they themselves unhelpfully gravitate towards certain kinds of interventions because of their own priorities and limitations, and that severely unbalanced capacity building interventions can be counterproductive and frustrate shared objectives. Our surveys indeed demonstrate that knowledge development has been over-emphasized with respect to resource availability, protocols over incentives, and attitudes ignored altogether. Since the crisis of government legitimacy which currently plagues LDCs cannot be sidestepped by relying on other actors to deliver essential services or to prepare communities to face the challenge of climate change, an agenda for more fruitful engagement with local government and administrative structures requires prioritization.
