Credible Commitment and ‘Downward Accountability’ in Nonprofits: 
A Model of Beneficiary Empowerment

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Abstract: Nonprofits often have a strong desire to practice ‘downward accountability’ to beneficiaries but the incentives they face favor ‘upward’ forms to donors. We propose a model of development aid that uses a credible commitment mechanism to align NGO incentives with community need. Evidence for the model is presented through a case study of post-earthquake relief in Gujarat, India where a commitment mechanism was used to determine aid allocations. Empirical data suggests that communities were positively engaged in the governance process and the reconstruction efforts were successful. The model is generalized to a variety of aid scenarios.

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1. Introduction

Every academic understands the challenges of adhering to deadlines in a co-authorship. Writing must compete with a variety of demands - course preparation, a steady stream of emails, administrative responsibilities, family obligations, sleep. So although it may be rational to set a deadline for sending a draft to a co-author, at the moment the paper is due the utility of attending to all of the other demands and getting a decent night’s sleep often outweigh the disutility of annoying the co-author with a missed deadline. One author suggests a bold measure to bind yourself to your deadlines. At the onset of the co-author relationship, write out a check to the most despicable special interest group that you can think of, the Ku Klux Klan for example, and send the check to your co-author for safe keeping. Instruct your co-author that if for some reason, any reason, you should miss a deadline, send the check to your nemesis. In doing so, you are making a credible commitment to the deadline. The competing demands will not outweigh the thought of your money sitting in the bank account of the Klan. In binding yourself to the obligation you will be mindful of choosing deadlines that are feasible and prioritize your time appropriately.

This paper presents a case for the use of credible commitment mechanisms designed to ensure downward accountability in the implementation of NGO projects. A credible commitment is a contractual or institutional mechanism that makes it easier for an agent to adhere to the terms of the agreement by lowering the utility gained from violating the terms (Schelling 2007). In game theoretic terms, “players can be bound when the gains from living up to agreements exceeds the gains from defecting” (North 1993). The notion of a credible commitment is not new. It was discussed in Schelling’s canonical text *The Strategy of Conflict* (1960) and has been employed in a wide variety of personal, business and government settings (see Williamson 1983). But it has not before been incorporated into a model of ‘downward’ accountability in the NGO literature. The topic is timely as demands for NGO effectiveness and accountability are on the rise (Edwards and Hulme 1996; Dichter 2003; Banerjee and He 2007; Ebrahim and Weisband 2007; Brown 2008; Kenny 2011).

Downward accountability prioritizes the needs of communities and beneficiaries over the demands of donors and other ‘upward’ stakeholders (Edwards and Hulme 1996). We present here an application that

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2 The problem of commitment and the principal-agent dilemma have been studied in the context of institutional aid (see Martens et al, for an example), but have been much less rarely used to examine NGO-community relationships.
gives insights into how commitment mechanisms might be used to incorporate direct participation of communities into project decision-making. In spirit it resembles approaches to participatory development movement (Nelson and Wright 1995) and to the literature on the coproduction of public goods (Ostrom 1996), but this model recognizes that, just like the author that commits to a paper deadline, NGOs will be pulled in many different directions through managerial demands and interests of diverse stakeholders (Cooley and Ron 2002). As a result, just like the academic missing the deadline, at the time of project implementation it may be more ‘rational’ to minimize the interests of the community in the light of other opportunity costs. Without binding incentives in place - a credible commitment mechanism in this case - the rhetoric of downward accountability may not be realized.

Binding mechanisms are powerful not only because they ensure that an individual will remain consistent with an action even when the relative costs of that action change (i.e. will power to adhere to a diet while satiated and happy versus hungry and depressed). But the commitment mechanism also sends a signal to other individuals that your hands are bound and you are unable to undertake a set of actions. Schelling gives the example of Xenophon, a Greek military commander that fought a battle against a large Persian army by positioning his troops with their backs against a cliff. The position of his army was a signal to the Persians that they would fight to the death instead of retreating.\(^3\) When it is clear that an individual has bound herself to an action, it also changes the way that others approach the situation. NGOs will often face situations where elites in a community can withhold their support for a project as a kind of hostage-taking in order to extort the NGO for benefits for themselves or their kin (Devine 2011). Binding commitments can send a signal to community leaders that the NGOs’ hands are tied on the matter such that they cannot acquiesce. In this way the binding mechanisms are useful to align incentives for the implementing agency, but also to transform the negotiation space with community members as well.

The goal of this paper is to shed light on some new and potentially powerful contractual forms for NGOs. The paper begins with an example of a credible commitment mechanism that was successfully employed in post-earthquake reconstruction. We then turn to a discussion of the accountability literature and present a general framework for the design of credible commitments in the NGO domain. Some examples of credible commitments are being used in a variety of settings are covered. We conclude with challenges and limitations to the approach.

2. Disaster Management in Gujarat, India

\(^3\) The example is referenced in the Radiolab podcast on credible commitments entitled “Help!” http://www.radiolab.org/2011/mar/08/
People in the state of Gujarat, India, woke abruptly on the morning of January 26, 2001 as a huge earthquake of magnitude 7.7 had rumbled through the region, crumbling buildings and destroying infrastructure. At the epicenter, in the district of Kutch, over 70% of the buildings were demolished. Over 20,000 people would die from the natural disaster and 1.7 million people became instantly homeless.

The region was by then familiar with disaster. A terrible cyclone has struck in 1998 followed by severe droughts in 1999 and 2000. Perhaps it was the practice from these calamities that allowed the state to spring quickly into action. Within nine days of the earthquake the Gujarat State Disaster Relief Authority (GSDMA) was created. Within a month, loans totaling $900 million were secured from the World Bank and the Asian Development Bank, a record time-frame for each of the banks (Asian Development Bank 2001). Relief efforts began immediately; aid went out to families and international NGOs were contracted for reconstruction and community revitalization efforts. By all accounts the actions taken were effective at dealing with the short-term crisis and ameliorating some of the possible long-term consequences of the earthquake (Lecy; Barenstein 2006; Krishna and Lecy 2008; Thomas, Ott et al. 2011).

There were several key factors behind the efficacy of the response. One of the more important was that GSDMA took on a strong coordination role following the earthquake and created a governance body for NGOs. In many post-disaster reconstruction scenarios NGOs have a great deal of autonomy to select and administer projects (Banerjee and He 2007), but that was not the case here. GSDMA made NGOs register and served as the central command committee. Each village was assigned a primary NGO to ensure equity in the distribution of resources (no villages receiving excessive aid) and prevent duplication of efforts. To make it fair the village had the opportunity to accept the assignment of the NGO or request another assignment. In this way a village was not stuck if they were unhappy with their assignment. This

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4 The GSDMA was given the Gold Award for Innovations in Governance by the Commonwealth Association for Public Administration and Management, the UN Sasakawa Award for disaster reduction, and the World Bank Green Award. See [http://www.gsdma.org/awards.htm](http://www.gsdma.org/awards.htm)

5 Other important factors include: GSDMA was thorough in its definitions of criterion for eligibility for benefits provided to family members of the deceased and to qualify for reconstruction. Engineers were trained to examine damaged properties and determine program eligibility. If property owners were unsatisfied with the assessment they could appeal. Second, reconstruction packages were made flexible. Beneficiaries could elect for full reconstruction to be undertaken by NGOs or they could receive funds to do the work themselves. If working on their own they received training in earthquake-resistant construction techniques and payments came in three stages to ensure it was going towards reconstruction.
simple rule ended up being quite powerful, however, as it gave communities leverage in bargaining power.

The second important thing the state did was allow villages to choose between a ‘coproduction’ approach to reconstruction (Brudney and England 1983; Ostrom 1996) and an NGO-driven approach. Coproduction in this case meant that community members rebuilt their own houses through training, materials, monitoring and compensation by GSDMA. Payments were made to the owners in three installments; the last one after the construction was complete and had been inspected by engineers. Housing reconstruction did not have to follow a certain design protocols and owners could add additional rooms or work spaces, but the work did have to meet earthquake-resistant structural requirements set out by the state (Barenstein 2006). Alternatively, the village could elect to allow the NGO undertake reconstruction. In this case, NGOs had standard designs for houses and owners had very little input into the process. Seventy-two percent of villages selected the coproduction alternative (Abhiyan 2003).

NGOs had operated in the region during the cyclone and droughts, so villages were accustomed to their modus operandi. Some villages were disappointed by the paternalistic nature of certain NGOs and the unbalanced relationship between international agencies and communities, so grassroots organizations had organized to monitor the delivery of aid and advocate on behalf of beneficiaries. Naynirman Abhiyan emerged as a coalition of 14 grassroots NGOs that served to coordinate community leaders and share information between villages. This institutional environment created an informational advantage for communities, giving them a bargaining chip that could be used in negotiations with international NGOs. Information quickly spread about which NGOs were willing to cater to the needs of the communities and which were more concerned with efficiency, thus leading to leverage in negotiating project characteristics. Members of local NGOs were even included on the survey teams (Barenstein 2006). Villagers became savvy consumers of aid, to the point that some negotiated for up to a year before agreeing to work with an NGO (Sharma 2003).

In the end the reconstruction project was a remarkable success. Of the 917,158 homes damaged in the earthquake, 908,170 were remediated by December of 2005 including 197,091 that were completely rebuilt. Over 70% was completed within the first two years. Over 95% of the homes complied with government building codes, and almost 80% of households reported that their housing situation was better than before the earthquake. Overall satisfaction with the government program and NGOs was extremely high (Barenstein 2006; Thomas, Ott et al. 2011).
The question raised by the Gujurat experiment is whether there may be a general model for downwards accountability that can be adapted to a variety of development environs in which NGOs work? What are the essential characteristics of the credible commitments machinery and what institutional support is necessary to create these mechanisms? How can coproduction be incorporated formally into development contracts? In order to answer these questions, we first examine the accountability literature to formalize the concept of an accountability mechanism and the differences between downwards and upwards considerations. We then present a general model of commitment mechanisms and institutional concerns for downwards accountability.

3. Accountability

One of the primary questions raised within the accountability literature, though, is who holds them accountable and to what standards (Raggo 2011)? The aid literature has long noted that accountability mechanisms tend to focus upward towards donors, rather than downwards towards beneficiaries (Ebrahim, 2003; Edwards and Hulme, 1996). The movement towards community-driven and community-based development derives from this understanding that donor incentives may not be well-aligned with those of beneficiaries. The use of community-based development approaches, however, is not systematically linked to better development outcomes, and appears to be plagued by problems of elite capture and poor targeting, particularly in unequal communities (Mansuri and Rao, 2004). More successful projects are characterized by many of the characteristics present in the Gujurat example above: government commitment, an enabling institutional environment, and accountability of community leaders to their communities (Mansuri and Rao, 2004).

Our starting point for thinking about accountability issues is the principal-agent perspective, in which an agent is conceptualized as an actor who is contracted to on behalf of a principal (Mitnick, 1982). In the most common case, the donor would be the principal and the NGO would be the agent charged with implementing the agent’s wishes. Principal-agent theory was originally used to understand managerial dilemmas in the firm (Alchian and Demsetz, 1972; Holmstrom, 1982). Because principals can only observe outcomes and not the full effort expended on the part of agents, they face challenges in interpreting observed outcomes, particularly the extent to which bad outcomes are due to bad luck or malfeasance. Principals can attempt to write detailed contracts that cover all possible contingencies, but not all contingencies can be foreseen and such contracts can quickly become cumbersome. Principals could also engage in more intensive monitoring of agents, but again this could substantially increase the costs of production and full monitoring is impossible. Alternatively, principals may be able to minimize
the risk of agency losses by employing better screening and selection of agents prior to contracting or by developing an institutional design that includes built-in checks and balances (Kiewert and McCubbins, 1991).

An agency view of accountability focuses on the relationships between actors, implying that some actors have the right to hold other actors to a set of standards, to judge their performance in meeting those standards, and to take action if standards are not met (Grant and Keohane, 2005; Edwards and Hulme, 1996). In this view, accountability relationships involve three components: standards for behavior, information about actual behavior, and the ability to judge performance and hold actors to account (Rubenstein, 2007).

A key advantage of the agency perspective as a starting point for thinking about downward accountability in aid relationships comes from the relatively stark framing of the relationships among NGOs and those that entrust them with authority and resources. Accountability is a contested concept and NGOs, like other organizations, are often engaged in strategic efforts to manage their accountability relationships with others (Kearns, 1994). NGOs engaged in relief and development can be viewed as agents who are delegated to undertake activities on behalf of various principals, particularly donors and governments. Agency challenges can arise for a number of reasons: the preferences of nonprofits may diverge from those of donors or other principals; the preferences of principals may not be clearly defined or understood; or in situations where NGOs face multiple principals, the preferences of these multiple principals may conflict (Gugerty and Prakash, 2010).

A key challenge in many community-driven processes is that they pay only ‘lip-service’ to local participation, and remain elite- and outsider-driven. Our case study above and the framework we develop below suggest some ways in ways in which power can be turned over to project beneficiaries, in essence making them the ‘principals’ in development.

4. **A General Model of Credible Commitments**

Presented here is a very parsimonious model of a donor-NGO-community relationships in order to illustrate the institutional design required to induce a binding, credible commitment by an NGO. The
question is how to structure the contract or agreement so that the gains from adhering strictly to the terms far outweigh the gains from cutting corners on a project or diverging too far from the contract. This contract structure, however, may impose important challenges of institutional design, which we address in the section that follows.

Models of strategic choice must carefully define the problem space since decisions rarely occur within a vacuum and the context matters. For example, the optimal strategy for a prisoner’s dilemma game varies depending upon whether the games are iterated and there is repeat interaction of players. The optimal strategy for a single-shot game is to defect, but the optimal strategy for repeated games is to cooperate. In these cases things like perceptions of fairness, reputation, and retribution can fundamentally modify strategic decisions (Axelrod and Hamilton 1981; Axelrod 1987). Models also change considerably if multiple games are being played at once, or if actors can play mixed strategies. For the purpose of this paper, we will examine the simplest case – a one-shot game where the player has to select the most ‘rational’ strategy – the one that has the largest expected utility. Partly this is done to simplify the problem so that the features of the commitment mechanisms are highlighted, not the dynamics of repeated play. But partly this game form accounts for the fact that many NGO contracts are in fact one-shot games. Humanitarian crisis, for example, are situations where donors contract with NGOs that they have not worked with in the past or will work with in the future. The normal caveats of rational choice models apply – NGOs are assumed to be maximizing expected utility, are risk-neutral, and utility is assumed to monotonically increase with revenues so the utility function does not need to be represented explicitly.

The model highlights a simple behavioral response of NGOs to the incentives embedded within the grant contract. The NGO first negotiates the contract with the donor and the communities, then faces the decision about how much effort to exert on the project. Effort is a continuous variable, but for the sake of exposition it is represented either as high or low in the model presented here. Once the NGO has undertaken an action it is evaluated by the monitoring agent, which could be the donor or a neutral third party. The monitor must decide if the NGO has fulfilled the obligation of the contract or not, and whether to impose the sanction if the project has not been implemented correctly.

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6 A low effort level should not necessarily be considered opportunism or shirking by an NGO. It may reflect merely the diversity of demanding projects that the NGO must balance, so the efforts not expended on one project may be spent on another that is equally important. In some cases, though, low effort level may result from corrupt NGOs and opportunistic behavior.
Figure 1: Structure of an NGO Contract with Performance Criteria and Monitoring

Where:

\[ p_1 = \text{probability of perceived success (compensation) given high effort levels} \]
\[ p_2 = \text{probability of perceived failure (sanction) given high effort levels} \]
\[ p_3 = \text{probability of perceived success (compensation) given low effort levels} \]
\[ p_4 = \text{probability of perceived failure (sanction) given low effort levels} \]
\[ p_1 + p_2 = 1, \quad p_3 + p_4 = 1 \]
\[
\text{Cost}_{\text{High Effort}} > \text{Cost}_{\text{Low Effort}}
\]
\[
\text{Benefit}_{\text{High Effort}} - \text{Cost}_{\text{High Effort}} \geq 0 \quad \text{OR} \quad \text{Benefit}_{\text{Low Effort}} - \text{Cost}_{\text{Low Effort}} \geq 0
\]

Project success is defined narrowly as the project being completed in a way that satisfied the stipulations in the contract and thus the NGO receives the funds specified in the contract. Failure occurs when the project is not completed, target goals are not met, or else the NGO simply fails to satisfy the key stakeholder in the contract – usually the donor. It should be noted that in some instances key stakeholders may deem the project a failure when all of the obligations have been met by the NGO. This case is similar in nature to a false negative, or a Type II error. But true and false negatives are included in the \( p_2 \) probability, and similarly true and false positives comprise \( p_3 \).

NGOs decide whether to exert high effort levels if:

\[
\text{Benefit}_{\text{High Effort}} - \text{Cost}_{\text{High Effort}} > \text{Benefit}_{\text{Low Effort}} - \text{Cost}_{\text{Low Effort}}
\]

So in the expected value framework, high effort level is the rational choice if:

\[
p_1 \cdot \text{Grant} - p_2 \cdot \text{Sanction} - \text{Cost}_{\text{High Effort}} > p_3 \cdot \text{Grant} - p_4 \cdot \text{Sanction} - \text{Cost}_{\text{Low Effort}}
\]

Rearranging the terms, the choice to exert high effort will be taken if:

\[
\text{Grant} \cdot (p_1 - p_3) + \text{Sanction} \cdot (p_4 - p_2) > \text{Cost}_{\text{High Effort}} - \text{Cost}_{\text{Low Effort}}
\]
In this format the mechanics of the decision are discernable. The ‘rational’ strategy of the NGO is ultimately decided by three factors – the potential cost savings from exerting low efforts (\(\text{Cost}_{\text{High Effort}} - \text{Cost}_{\text{Low Effort}}\)), the probability of detection, and the size of the sanction imposed on detection. These considerations work together in the design of the commitment mechanism. There are then two design choices to increase the binding nature of the mechanism (i.e. making the decision to adhere more desirable).

First, the mechanism can be strengthened by increasing the accuracy of the detection mechanism. The accuracy is represented by the difference between the probability of the project being labeled a success in the high effort versus the low effort scenarios \((p_1 - p_3)\) and the difference between a true negative and a false negative \((p_4 - p_2)\). Since both false positive and false negative outcomes are embedded in these probabilities, these monitoring considerations change the behavior of the NGOs. As the accuracy of monitoring increases the expected value of exerting a high effort level will increase and vice-versa.

Second, the mechanism can also be strengthened by increasing the size of compensation either by making the grant or the sanction larger (the sanction is just negative compensation). This is an interesting design consideration because the grant represents a real cost for the donor, whereas the sanction generally represents a potential cost for the NGO. Also, the grant will assuredly be paid out in the majority of the cases whereas the sanction will be rare. A ‘rational’ NGO will not accept contracts where they are expected to lose money, and as such the expected payout must exceed project costs and possible sanctions in at least one’s scenario, whether that is the adherence scenario or the shirking scenario. So one of the following must hold:

\[
P_1 \cdot Grant - p_2 \cdot Sanction - \text{Cost}_{\text{High Effort}} \geq 0
\]

\text{OR}\(^7\)

\[
P_3 \cdot Grant - p_4 \cdot Sanction - \text{Cost}_{\text{Low Effort}} \geq 0
\]

And thus we can infer the size of a premium necessary to engage the project:

\[
P_1 \cdot Grant - \text{Cost}_{\text{High Effort}} \geq p_2 \cdot Sanction
\]

\text{OR}\(^8\)

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\(^7\) It is an OR relationship because the NGO can choose either strategy, but at least one would have to yield net positive utility in order to be rational.
\[ p_3 \cdot Grant - Cost_{\text{Low \ Effort}} \geq p_4 \cdot Sanction \]

If the probability of detection of project failure \( (p_2 \text{ or } p_4) \) and project costs are held constant, then the donor must increase the size of the grant any time the size of the sanction is increased in order to ensure that NGOs are willing to accept the contract. The reasoning is similar to raising interest rates on investments that have a high default rate – NGOs would need extra incentive to sign a contract when the potential sanction is high and they cannot control the reasons for project failure. In volatile operating environments there may be less control over project implementation and thus the probability of failure is independent of NGO effort levels. For example, an agricultural project where drought is common or farmers might be unwilling to adopt new technologies. However, most credible commitment mechanisms are built upon the premise that agents can influence the probability of success by a realignment of priorities and resources. Think back to the academic whose co-author holds the check written out to the Klu Klux Klan. The fact that a large sanction exists changes the effort that the author expends, which then changes the probability that the deadline is met. Or in the current framework, the author chooses the strategy of adherence over the strategy of shirking because shirking becomes too costly. For a plausible mechanism to exist the world must be such that:

\[ p_1 > p_3 \quad AND \quad p_4 > p_2 \]

The probability of project success must increase if the NGO exerts a high level of effort (adheres to the contract terms) and the probability of project failure must increase if the NGO shirks. Or stated another way, project success must be a function of effort, and effort must increase with larger grants and larger potential sanctions. If the project outcome cannot be reasonably influenced by the actions of the NGO, then the optimal mechanism is eliminate the sanction and set the grant size equal to project cost. This is the default practice of many donors that operate in complex environments like humanitarian relief.

The accuracy of detection will vary greatly according to the domain of activity. For example, emergency relief agencies that deliver stoves to households are relatively easy to monitor. Houses have stoves and are producing heat for their inhabitants, or they are not. NGOs that provide more complex services – economic development or women’s empowerment, are more difficult to monitor. The data may be more costly and detection less accurate. Note that as accuracy decreases then larger grants or larger sanctions are necessary to sustain a plausible mechanism. In the case where accurate determination of NGO action
is impossible then the evaluator will basically be flipping a coin and the accuracy margin \((p_1 - p_3)\) will go to zero. In this case then no mechanism is feasible, no matter how large the grant or sanction.

\[
Grant \cdot (0.5 - 0.5) + Sanction \cdot (0.5 - 0.5) > Cost_{Adhere} - Cost_{Shirk}
\]

\[
\Rightarrow 0 > Cost_{Adhere} - Cost_{Shirk}
\]

The model offers insight into the design of a mechanism, but it also offers guidance on how to NOT design a binding institutional mechanism. Specifically, the terms and payouts must reflect the risk that NGOs undertake in the transaction. Intervening events like conflict, political in-fighting within a community, or natural disaster may potentially erase the gains made by an NGO and expose them to punishment by sanction. In these kinds of environments, the optimally-designed mechanisms would pay NGOs a premium to account for environmental risk. In practice NGOs are often paid the bare minimum cost for projects are expected to subsidize projects and balance risk through independent fund-raising, resulting in a starvation cycle (Blackwood 2009; Gregory and Howard 2009). One might ask why these kinds of arrangements persist if they are sub-optimal? North points out, many institutions that produce poor economic and political outcomes are ubiquitous, but that is not good justification for their continued support (North 1990).

In summary, the following criteria must be met in order for credible commitments to be used as viable mechanisms within NGO contracts:

1. NGOs must be able to influence the probability of project success in a meaningful way with their level of effort. In other words, project success must be more dependent upon actions of NGOs than upon environmental factors.

2. Under risk of sanction, the grant premium must compensate for risk of project failure when effort levels are high.

3. The threat of sanction must change the expected value of shirking enough to make it a ‘non-rational’ strategy for the NGO. As such, the threat of sanction must be credible given the information asymmetry the donors face.
5. Institutions and Enforcement

Investigations of the Deepwater Horizon oil spill have found the regulatory structure of oil companies was partly responsible for the lax regulatory environment that lead to inadequate blowout controls. Specifically, the US Minerals Management Service was responsible both for enforcement of regulation and for the collection of drilling royalties. This dual role created a conflict of interest that incentivized the organization to overlook infractions and thus undermine the effectiveness of the regulatory structure. The institution was very poorly designed from the perspective of protecting workers and society from the hazards of negligence. Credible commitment mechanisms provide a means of ensuring downwards accountability in aid projects, but the mechanism can only work when it is enforced through institutions. Thus, the institutional design question is a key component of the equation. The institution should be structured in a way that NGOs are incentivized to maximize project impact and the monitor is incentivized to sanction the NGO when necessary.

One of the key roles that institutions play is the mediation of the negotiation process that results from incomplete contracts (Hart and Moore 1988; Hart 1988). If a task is simple enough then a contract can contain enough detail to enumerate all possible contingencies, but outside of the most trivial tasks there will always be decisions that are made after the contract has been engaged. Part of the contract is laying out the rules by which these negotiations occur and how conflict is resolved.

The institutional context plays an important role in this task. The major shift difference between upwards and downwards accountability is the location of the negotiation space. In the upwards accountability scenario the standard principal-agent model applies (Sappington 1991). The donor serves as the monitor and both rewards and sanctions the agent according to perceptions of whether negotiated obligations have been fulfilled. In the downward accountability model, however, the donor relegates any post-hoc negotiations to the NGO and beneficiaries. The donor is willing to accept whatever arrangement these two stakeholders, although the donor retains veto and arbitration powers. In this way, the project is aligned with the community needs instead of donor demands.

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8 It was, however, designed well to minimize transaction costs for big oil companies!
The contract negotiation space serves two fundamental roles in the implementation of projects. First, it is where donors, NGOs and beneficiaries mutually construct the terms of project success and termination. The contract might be writ large for reconstruction, but it is through negotiation phase that reconstruction is defined as including the house, a well for the village, part of the school, and latrines, for example. Once these terms have been defined, either formally in a memorandum, or informally, they create expectations that must be met. It is also within this negotiation space that the potential for coproduction is realized. Ostrom describes coproduction in the following way:

In some important production processes not all of the inputs that could potentially be used to produce an output are under full control of a single, public-sector principal. In constructing infrastructure facilities, for example, the labor used to construct a facility could all be employed by a public utility, it could all be contributed by citizens, or some of the labor could come from both sources...When the inputs from a government and citizen are complementary...output is best produced by some combination of input from both sources. Now, a potential for synergy exists...The intensive involvement of citizens in the initial design and continuing maintenance of these systems changed the shape of the production functions so that what citizens did made the effort of public officials more efficacious and
vice-versa... It also generated social capital in the form of urban residents learning how to work with each other and with public agencies. This social capital is then a potential asset to be drawn on to obtain other kinds of urban goods and services. (Ostrom 1996, p. 102-104)

When the donor and the NGO negotiate the contract absent the beneficiaries, there is no guarantee of buy-in on the beneficiaries’ part and no guarantee that the project will address beneficiary preferences. This may be why 40% of the reconstructed houses in Bosnia remained unoccupied after project completion (see the next section). Owners were not part of the process so there was no guarantee that houses would fit their preferences, nor did they have the same psychological attachment and ownership of the results as the individuals in Gujarat that rebuilt their own houses. In addition, co-production helps to serve as a screening mechanism. Co-production requires community members to invest their own time and resources into the project. Individuals are unlikely to make investments in projects they judge as inappropriate, but the investment requirement also screens out opportunistic individuals who are interested mainly in extracting resources from NGOs. In many cases in Bosnia, for example, people would enroll to have their houses reconstructed so that they could sell them off to the neighbors and use the money to immigrate. In the Gujarat case we discuss above, communities were given the option of co-production with greater control over the good produced and the majority of communities chose this option, with far better outcomes.

6.0 Monitoring Costs

A credible commitment mechanism depends upon good information and project monitoring. Many donors are hesitant to invest too many resources to monitoring costs because the same resources could be spent on expanding programs and deepening impact. Since the results of evaluation are less tangible they are harder to justify, especially in an era when civil society has a near-religious mandate to minimize administrative costs and maximize spending on programs. There is actually a good argument to be made that monitoring is under-funded, however, since no information can be more costly than imperfect information. From a conceptual point of view, it is possible to determine how much should be spent on monitoring.

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9 If you ever talk to venture capitalists and ask them about things they look at in start-ups, one of the first things that they mention is the willingness of the entrepreneurs to invest their own money in the projects. If they have taken money out of their retirement account or quit their jobs in order to pursue the project it is a signal of commitment to the project and belief in its success.
Following the conflicts in the Balkans Europe invested heavily in reconstruction efforts in order to stabilize a region that was viewed as a tinder box in the backyard. Between 1995 and 1999, for example, $5.1 billion was spent in post-war Bosnia (Hedges 1999). Destruction from the conflict was tremendous – over 60% of all residential structures were damaged or destroyed. The reconstruction efforts were equally epic. Over 200,000 properties were reconstructed under the auspices of international aid programs (Williams 2005). In subsequent evaluations of the projects, though, more than 40% of the reconstructed houses remain vacant due to the lack of social and economic infrastructure in the villages and concerns about security (Solberg 2002). By some estimates, over $1 billion of the $5.1 billion in aid was lost to graft and corruption, or about 20% of the funds (Hedges 1999). Although this may be an extreme case, it is by no means an isolated case - elite capture of development aid is a common phenomenon (Platteau 2004). In Gujarat, for example, follow up evaluations found that when NGOs did not use appropriate accountability mechanisms some families gamed the system to receive multiple houses in multiple villages (Thomas, Ott et al. 2011). The amount of corruption and waste in post-tsunami Indonesia and post-earthquake Haiti are reported to have been worse (Economist 2010).

In these cases the calculation for the upper limit for monitoring and enforcement costs is relatively straight-forward. At the maximum, it should be the potential losses from the zero-monitoring case. So, for example, if 20% of the funds in Bosnia, or $1 billion, is lost to corruption, then the absolute maximum that should be spent on monitoring is $1 billion. The maximum assumes that monitoring will be 100% effective at preventing loss, which is an unreasonable assumption. Say that monitoring is only 50% effective at preventing failed projects, then the potential savings of monitoring will be $500 million. That is still a huge budget for monitoring and enforcement activities relatively to what it typically spent.

Spending the maximum amount possible on monitoring is unlikely to be efficient, because there will be diminishing returns to monitoring activities at some point. It is relatively easy to identify the most egregious cases of corruption, for example. It is relatively harder (and more expensive) to identify more subtle cases.
One would want to pick the monitoring ‘technology’ or ‘institution’ that maximizes potential cost savings where savings is represented by the cost of failed projects.\(^\text{10}\) Note that gains come not only from money that is not spent when the NGO is found to be shirking, but also from the changes in the expected value of shirking that leads fewer NGOs to do it. It should be noted that there are certain cases where the costs of monitoring are prohibitive of the development of an effective commitment mechanism. If the potential gains are low, or if the cost of identifying failed projects is high, then donors are better off without a sanction mechanism. Another component of the monitoring strategy is the proportion of organizations that are audited. In some cases, it will be all. In other cases, just a subsample of the population will be audited. An example of an improved monitoring technology would be one that allow for a larger portion of the population to be audited without increasing the expense of doing so (electronic filing of reports, for example).

7. Some Recent Applications of Credible Commitment Contracts

\(^{10}\) In practice the monitoring technology will not represent a continuous spectrum as suggested by the graphic below, but rather a choice between several distinct institutional forms. As prescribed by the Institutional Economics literature, donors should pick the institutional form that minimizes transaction costs. Williamson, O. E. (1999). "Public and private bureaucracies: a transaction cost economics perspectives," *Journal of Law, Economics, and Organization* 15(1): 306-342.
Academics are fond of reverse engineering in the social sciences – we know something works in practice, but does it work in theory? Now that we have presented an abstract description of credible commitment mechanisms and institutional considerations, it is useful to point out several cases of binding mechanisms that have emerged in the policy realm recently in order to demonstrate the application of these theories in real-world situations.

Debates of deficits, budget cuts and tax raises have left Congressional efforts at the formulation of a reasonable plan in a stalemate. Part of the problem is that both sides can earn political points if the stalemate continues, but only at the expense of citizens and businesses. Recently Obama suggested that Congress should create a debt trigger. If Congress was unable to negotiate a sufficient debt-reduction package in a given time-frame then the trigger would activate automatic cuts to programs that are valued by Democrats and Republicans. As a result, they are bound to the negotiations by time. In agreeing to a debt trigger, both sides of the debate would be committing themselves to sincere negotiations since they can no longer win political points by failing to enacted a budget.

In another realm, a new mechanism has been proposed for funding nonprofit activities in a way that guarantees performance through ‘market discipline’ (Leonhardt 2011). Social Impact Bonds or ‘pay for performance’ grants were developed in the UK and have gained recent support in the US with the Obama administration proposing $100 million in federal money to experiment with the mechanism. A nonprofit will agree to certain performance criteria – for example reduced rates of recidivism among a prison population – and then bind their compensation to these criteria contractually. The project is funded up-front by foundations which are then repaid with interest when the bond matures after four or five years. An independent evaluation agency examines the project to see if the nonprofit has achieved what was stipulated in the contract, and if so the bond money is allocated to the foundation with interest at rates specified in the contract. The foundation makes its money back with additional interest, unless of course the nonprofit misses the target. This mechanism not only incentivizes the nonprofit to focus effort on achieving the outcomes but it also forces the foundation to only fund nonprofits that will likely be effective.

In a similar way, the move towards community score cards and participatory budgeting provide a way for communities to have real power over how public agencies spend tax revenues. These projects can take several forms. Citizen report cards work by providing a mechanism through which citizens gather independent information on the performance of public agencies and make this information public. In essence these programs provide a means for beneficiaries to engage in better monitoring and enforcement. Organizations like the International Budget Project or Revenue Watch operate by increasing transparency and information availability and by educating citizens about the meaning and content of this information, essentially lowering the costs of monitoring for agents. The provision of better information, however, is more likely to stimulate change in environments that are open enough to permit such public information gathering and where the public sector feels constrained by the weight of public opinion. Participatory budgeting processes allow citizen representatives to gather information on community needs and preferences and in some cases give them voting power in budget allocations so that citizen preferences are incorporated into budget allocations (DeSousa Santos, 2008). To date, the focus of these initiatives has been on public sector transparency, but report cards and participatory aid allocations could also be explored in the NGO sector.

8. Conclusions

In this paper we argue that relatively simple commitment mechanisms could potentially be employed to incorporate community preferences into development projects in ways that improve projects design and outcomes for beneficiaries, NGOs and donors alike. We have presented here a parsimonious model of a one-shot contract that involves sanctions and monitoring. We derived three main characteristics that such a contract needs to have in order for it to serve as a viable contract. We then discussed the institutional arrangements necessary to write and enforce NGO contracts with credible commitments embedded in them, illustrating with several simple examples. The discussion is meant to inform the accountability literature as well as inspire more applications of binding mechanisms within the NGO domain, but in a way that appropriately balances costs and risks that NGOs face in these kinds of arrangements.

We suggest three necessary components to credible commitment mechanisms in NGO projects:

12 [www.internationalbudgetproject.org](http://www.internationalbudgetproject.org),
13 See [www.citizenreportcards.com](http://www.citizenreportcards.com) for more information.
First, projects must find an appropriate mechanism that aligns NGO incentives with desirable project outcomes. For NGOs to be willing to enter into and adhere to contracts, it must be rational to adhere to terms of the contract after it has been enacted.

Second, it needs to be ‘rational’ for NGOs to shift efforts from exerting effort to placate donor demands to spending time and resources in meeting the needs of the community. The mechanisms available to affect this shift include better contract design, better monitoring and/or more credible and costly sanctions.

And third, the contract negotiation space should be shifted to the community realm so that NGOs can be compensated for addressing real community needs instead of donor perceptions of needs. This also creates the opportunity for coproduction processes which can transform the act of project implementation into empowerment through participation and capacity-building.

If donors are serious about creating these kinds of downward accountability contracts, they must be willing to commit to three things:

First, must donors must be willing to delegate control of projects and to accept that community priorities might not be donor priorities. Decisions at the community level might conflict with strategic interests of sponsoring agencies. Donors must be willing to trust that communities can identify their needs. In addition, NGOs must be willing to be accountable in some concrete way to beneficiary communities. If communities hold the power to allocate contracts or to impose sanctions, NGOs are much more likely to exert high levels of effort. Of course, the problem of elite capture remains a challenge.

Second, donors must be willing to sanction NGOs. This means first and foremost the willingness to set up a process for project evaluation that is transparent and fair, which will require investment of resources and development of evaluation capacity and experimentation with institutional forms of monitoring. Donors give up even more control once they set these institutions in motion because they will no longer have direct control over implementing agencies.

And third, donors must be willing to compensate NGOs for additional risk. If sanction mechanisms are imposed then there is a chance that NGOs will not be compensated for their work if projects fail. And
projects often fail in the development realm (as in the business realm). Risk premiums must be commensurate with the amount of volatility in the environment and with the size of the sanctions.

Although many accountability mechanisms have been introduced in the literature, the approach presented here attempts to construct the mechanisms in a way that puts downward accountability at the center of the model instead of principle-agent formulations that are common. It is, however, no easy task as there are many moving parts – compensation and sanction considerations as well as institutional ones. The examples that are highlighted from various policy domains are meant to show that these kinds of mechanisms are in fact feasible and in use. But each domain contains its own challenges and considerations like monitoring costs and community coproduction will vary significantly with context. The general framework is meant to give donors and policy-makers a starting point when thinking through designing new contracts and institutions for use in a new development domain.
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