

Radical Decentralization: Does Community-Driven Development Work?

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Abstract

Classic arguments for decentralization, augmented by ideas about how participation empowers the poor, motivate the widely used approach in foreign aid called community-driven development. CDD devolves control over the selection, implementation and financial management of public goods to communities. Until recently, policy enthusiasm has outstripped the evidence. I synthesize findings from randomized controlled trials and find that CDD effectively delivers public goods and modest economic returns at low cost in difficult environments. There is little evidence, however, that CDD transforms local decision-making or empowers the poor in any enduring way. Part of this failure may be because some constraints believed important—like insufficient social capital—appear not to bind. Others, like exclusive local institutions, are a problem, however not one that CDD remedies. These results present a conundrum: how much participation is enough to safeguard the gains of such “extreme” decentralization, while minimizing the opportunity costs imposed on poor people’s time?

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A wave of democratization swept the globe from the mid-1970s to 2000, bringing the total number of electoral democracies to 120 countries (Freedom House 2000). By giving ordinary people political voice, democracy is thought to both strengthen incentives for government performance and generate intrinsic benefits for citizens. Research further suggests that “better” early institutions—that protect property rights, impose checks and balances, and afford political power more equitably (Engerman & Sokoloff 1997, Acemoglu et al. 2001, Banerjee & Iyer 2005)—have positive long run effects on economic growth and explain much of the contemporary variation in national income (Rodrik et al. 2004). The international donor community thus prioritizes strengthening democratic practices in developing countries, with the explicit target to “build effective, accountable and inclusive institutions at all levels” articulated in the newly adopted Sustainable Development Goals (United Nations 2015). The key question is how to do this.

Community driven development (CDD) is one prominent strategy that foreign aid donors use to operationalize this mission. CDD devolves financial and operational control over public goods to communities, while simultaneously promoting an inclusive, transparent and highly participatory approach to local decision-making. In practice, the facilitation component typically involves quotas for women and other marginalized groups to hold leadership positions, sign off on financial transactions, and participate in the selection and implementation of sponsored projects. Within the broader democratization agenda, these two prongs of CDD—block grants for infrastructure and social facilitation—are rooted in theories of decentralization and empowerment.

For the first, the logic of Oates (1972, 1999) applies straightforwardly: local agents have superior information about their preferences and resources, which they can leverage to tailor and deliver public goods more efficiently than the central government. With heterogeneous preferences, the optimal location of control is thus the most disaggregated level that captures spillovers and economies of scale. CDD takes this argument to its extreme: it devolves responsibility for public services outside the formal government and gives control to village committees that are neither elected, hired nor formerly overseen by the state apparatus. A similar rationale drives recent efforts to increase public involvement in monitoring front line service providers and identifying eligible households for social safety nets. This emphasis on citizen participation in service delivery has caught fire in foreign aid circles (see, for example, The World Bank 2004).

The weaker institutional environments that characterize many developing countries, however, create a distinct set of concerns about the efficacy of such “extreme” decentralization. Bardhan (2002) emphasizes how the lack of local accountability structures and concomitant risk of elite capture can undermine decentralized service delivery in poor countries. He argues that “decentralization, to be really effective, has to accompany serious attempts to change the existing structures of power within communities and to improve the opportunities for participation and voice and engaging hitherto disadvantaged or disenfranchised in the political process” (page 202). Thus the entire model of CDD—including social facilitation—can be justified on strictly economic terms to safeguard the benefits of decentralized service delivery where institutions are weak.

CDD advocates, however, promise much more than this.

Motivated by seminal contributions of Sen (1985, 1999) on capabilities and agency, and Ostrom (1990, 2000) on social capital and collective action, the design of CDD aims to empower poor

people and set local communities on a sustainably stronger development trajectory. These theories provide a very different argument for participation, one that focuses on its intrinsic value and connects participation to ideas of self-determination and human rights. The World Bank, a major proponent of participatory development, argues in its sourcebook that “well-designed CDD programs are inclusive of poor and vulnerable groups, build positive social capital, and give them greater voice both in the community and with government entities” (Dongier et al. 2002 page 304). Moreover, the authors posit that “the speed and directness with which CDD empowers poor people is rarely matched by other institutional frameworks for poverty reduction” (page 308).

Until recently, the enthusiasm for CDD and other participatory approaches far outstripped the available evidence on its efficacy (Mansuri & Rao 2004). A series of randomized controlled trials conducted over the past decade is closing this gap, and occasion this review. I synthesize, including by formal meta-analysis, the accumulated evidence on the efficacy of CDD as radical decentralization and a vehicle of empowerment, respectively. Taken together, the studies suggest that CDD effectively delivers local public goods, and generates modest economic returns, in incredibly difficult environments. I view this as an important achievement. There is little evidence, however, that CDD empowers poor people or fundamentally alters local institutions. While studies do find that participation enhances satisfaction with funded projects—evidence of intrinsic benefits—the inclusion experience does not appear to spill over onto other realms of collective choice or make traditional systems of authority more democratic.

This constellation of results presents a conundrum: how much participation is enough? Specifically, how much participation is needed to safeguard the value of decentralized infrastructure provision, maximize the intrinsic benefits it carries, while not overtaxing poor people’s time? Decentralization theory focuses on the instrumental value of participation, where in addition to unlocking information and accountability relationships, it facilitates better targeting, greater sustainability and lower implementation costs. Below I review empirical evidence that is largely supportive of these claims. At some point though, the opportunity cost of participation must surely eclipse its instrumental and intrinsic value. This last idea—that participation is a tax and associated quotas for the poorest and most marginalized make it a particularly regressive one—has received little attention in the literature. While determining the optimal level of participation may not be feasible, we should at minimum be conscientious of the potential costs when designing and evaluating participatory development programs.

Regarding empowerment, the lack of evidence for the transformational promise of CDD was not *ex ante* obvious. Elinor Ostrom, whose work keenly appreciates the difficulty of building social capital via external interventions, co-authored the World Bank sourcebook and presumably viewed CDD as the best available practice for foreign aid donors. The strength of the empowerment “treatment,” while variable across contexts, was strong, at times commanding budget shares on par with that of the block grants. So why does it not work?

Available evidence takes us only so far in answering this question. I find that some of the constraints believed to be important—like insufficient social capital—do not appear to bind in these contexts, and in fact, are in abundance. Other hurdles, however, are clearly present, including substantial power disadvantages for women and other vulnerable groups in local politics. Why the learning-by-doing experience of successfully delivering public goods in an inclusive and

satisfying way does not open up more opportunities for these groups is hard to say, especially given gains from women's participation found in other contexts and programs (Duflo 2012). It seems clear, however, that the null results for institutional change are unlikely to be a mechanical result of measurement error, as the CDD literature shows great variety and innovation in attempts to capture this elusive concept.

This apparent failure generates immediate policy questions about the value of social facilitation. While it seems critical for creating implementation practices that are sound and viewed as legitimate by beneficiaries, every dollar spent on facilitation reduces the budget available to fund infrastructure projects directly. More fundamentally, we still have very little idea how external donors can help strengthen local institutions. While CDD seems like an effective stop-gap for delivering public goods in the presence of central government failure, it is not clear that CDD and other "extreme" forms of decentralization are a desirable long-term strategy. As countries emerge from economic and political crisis, it may, for instance, be preferable to reallocate this aid and technical support to local tiers of the formal state.

In the rest of this article, I situate the move toward CDD within broader trends in development policy and discuss the nuts and bolts of its implementation. I then discuss the motivation for, and evidence regarding the efficacy of, CDD as radical decentralization and as an engine for social and institutional change. The review concludes with future directions for research and policy.

I. Origins and Current Practice of CDD

While enthusiasm for local participatory development, broadly construed, has ebbed and flowed over time (see White 1999), its current popularity represents a distinct trend break in development policy. Shortly after the signing of the Bretton Woods agreement, initial interest in beneficiary participation was essentially erased by the move toward "Big Development"—large scale, centrally provided infrastructure—in the 1960's. A short-lived reappearance of "small d" development in the 1970's did not gain widespread traction. Disillusionment with the centralized approach spurred the ascendance of local participation in the 1990's. This has become big business: the World Bank alone invested \$85 billion in participatory projects over the past decade (Mansuri & Rao 2013 page 1). As is common for many policy debates, these pendulum swings have not been backed by much rigorous evidence. Fortunately, this is beginning to change.

Community-driven development sits underneath this participatory umbrella. While a great many different types of interventions travel under variations of the label "community development" (see Mansuri and Rao 2013 for an excellent, expansive review of local participation in development), I focus consideration here more narrowly on interventions that possess a few distinctive features of CDD and have had at least some part of their operations investigated by a randomized controlled trial (RCT). Specifically, I review projects that create a community-level governing body to oversee project implementation, often referred to as a village development committee (VDC); provide technical assistance and block grants for public infrastructure and services that communities manage directly; and provide social facilitation that explicitly promotes the inclusion of marginalized groups and broad-based participation in decision-making and local governance.

A. Conceptual framing

Conceptually, these core features of CDD aim to reduce both the marginal and fixed costs of producing local public goods.¹ At a high level, a combination of poverty, central government failure and financial market imperfections leaves communities with sub-optimally low levels of public goods and services, and correcting this deficit by generating such goods locally requires both capital and collective action.

Regarding capital, CDD block grants straightforwardly reduce the marginal costs of public infrastructure construction. Financial transparency requirements bolster this effect by reducing the leakage of project funds. Resulting infrastructure investments can improve access to and the quality of public goods and services. Such construction could further enhance household welfare via the wages paid for labor in project implementation, productive investments in agriculture or skills training, and/or road investments that improve market access. CDD emphasis on local choice in project selection and management aims to better align these investments with demand to enhance utilization and maintenance over time.

The argument for collective action is more nuanced, and covers both individual participation decisions and local institutions to facilitate coordination. Historical legacies of exclusion prevent marginalized groups, like women, from taking part in many community decisions and activities. Explicit participation quotas for CDD projects lift these barriers in the short run, with the expectation that the resulting increase in their participation leads to learning-by-doing or demonstration effects that shift social norms toward greater inclusion over the long run. More broadly, providing an opportunity for community members to come together and work on projects with collective benefits aims to build social capital, or the “social networks and the norms of reciprocity and trustworthiness that arise from them” (Putnam 2000 page 19), and make future collective endeavors easier to organize. The capstone here is creating the institutional architecture to sustain such coordination even after CDD project activities end. The idea is that village development committees, whose members are trained in democratic processes and given an opportunity to learn-by-doing implementing sponsored projects, can easily be called upon to manage other collective decisions or avail of new development opportunities.

If these conceptual channels bear out in the data, we should see improvements in public goods and material welfare, at least in the short run; alongside durable increases in the participation of marginalized groups in local decisions, stronger ties amongst community members, and greater capacity to engage in collective action. Section II synthesizes the evidence on the first point and explores how it informs broader questions of decentralized public goods provision. Section III discusses the second point and tries to understand why CDD does not appear to have an enduring impact on collective action and local institutions.

B. Sample of reviewed projects

This article focuses on research surrounding seven CDD projects: the Kecamatan (“sub-district”) Development Project (KDP) in Indonesia, the National Solidarity Program (NSP) in Afghanistan, the GoBifo (“Move Forward”) project in Sierra Leone, the Tuungane (“Let’s Unite”) program in the Democratic Republic of Congo (DRC), a community driven reconstruction program (the post-

¹ See the online supplementary materials for Casey et al. 2012 appendix C for a more formal treatment.

conflict adaptation of CDD) in Liberia, the KALAHI-CIDSS (Comprehensive and Integrated Delivery of Social Services) program in the Philippines, and the Community Development Fund in Sudan. While I focus primarily on RCTs, I also discuss quasi-experimental evidence about the efficacy of these programs.

This list of countries immediately makes clear that CDD projects are operating in an incredibly diverse, and difficult, set of contexts (Figure 1). In the DRC, Afghanistan and Sudan, program operations (and research) were disrupted by ongoing violent conflict. The security situation in all three countries remains perilous today. Programs in Liberia and Sierra Leone began shortly after the end of civil war. All five countries are among the very poorest in the world. While CDD programs in the Philippines and Indonesia operate in somewhat wealthier and more stable environments, they grew out of a response to the Asian financial crisis and associated political upheavals, and both countries continue to grapple with regional security threats.

[INSERT FIGURE 1 ABOUT HERE]

Despite these difficulties, several programs quickly reached massive scale. KDP, widely regarded as the flagship CDD program, and its successors reached every rural kecamatan in Indonesia (over 60,000) within a decade of launch (Voss 2012). Since starting in 2003, the NSP has funded some 90,000 projects in 35,000 communities valued at over \$2.3B, making it the single largest development program in Afghanistan (Beath et al. 2017). Tuungane covered 1,250 villages with a beneficiary population close to two million in areas of the DRC that previously housed the “deadliest war in modern African history” (Humphreys et al. 2015 page 6). CDD so far has been a decidedly rural phenomenon, although governments and donors have begun experimenting with similar urban initiatives.

These CDD initiatives that have been rigorously evaluated are a highly selective subset of the global portfolio, which is large: using a broader definition of what constitutes CDD, Wong (2012) notes that the World Bank alone supports 400 such projects in 94 countries. We can take some confidence from the fact that the very reason these particular initiatives were studied extensively is that they occupy prominent positions in the policy world. It will not be possible, however, to extrapolate to the broader population, where it is both plausible that impacts would be larger, as implementation is smoother in “easier” environments, and smaller, as the returns to additional infrastructure may diminish with growth.

C. Nuts and bolts of implementation

Within the framework of grants and participation, project design details vary. Figure 2 organizes projects by two broad-brush measures of intensity: the size of block grants sent to communities, and the relative amount of accompanying resources dedicated to social facilitation. Block grants vary from roughly one dollar per beneficiary per year in the first phase of Tuungane in the DRC, to close to eight dollars in the Philippines and Sudan. Grants typically require a community co-pay of around ten percent and are paid out in tranches. While the money involved in absolute terms looks small, it is large relative to community revenue: a KDP grant for example, roughly doubles average local government expenditures (Olken 2007).

[INSERT FIGURE 2 ABOUT HERE]

Communities make different choices about how to allocate grants across sub-projects, in part driven by differences in grant size. The average NSP grant in Afghanistan is relatively large (\$33,000) and varies with village population (Beath et al. 2013c), while the GoBifo grants in Sierra Leone are smaller and uniformly valued at \$4,677 per village (Casey et al. 2011). Infrastructure sub-projects in NSP are accordingly on a larger scale: 28% in irrigation, 22% in transport, 19% in electrical power, and 18% in water and sanitation. While GoBifo focuses on highly localized public goods: 43% in small scale infrastructure like latrines; 26% in agricultural investments, like grain stores; and 17% in skills training and small business start-up capital. When interpreting treatment effects, it is thus important to remember that local choice, which is fundamental to the CDD model, necessitates estimating diffuse program impacts across multiple sectors and types of investment.

The intensity of social facilitation also varies considerably. At the top, 47% of the total GoBifo budget funded block grants and 30% capacity building, implying that for every dollar given to communities for infrastructure, sixty three cents was spent on promoting inclusive and transparent decision-making (Casey et al. 2012). Adding in operational costs, like management time and monitoring, brings this ratio to one-to-one. On the ground, this investment afforded each village roughly six months of dedicated in-person interaction with a local facilitator, spread over three and half years of project implementation. At the other extreme, the first phase of Tuungane provided only four days of technical training, in which less than 0.7% of targeted beneficiaries participated directly (Humphreys et al. 2012).

Lastly, CDD projects differ in their approach to institution building. The NSP in Afghanistan reflects the most intensely democratic approach to assembling a local committee to oversee the project: universal suffrage, secret ballot election, with a requirement for gender parity in VDC membership (Beath et al. 2013c). Other projects are more informal, leaving it largely to villages to assemble their own VDC. Projects usually include explicit quotas for disadvantaged groups in holding leadership positions and signing off on financial transactions. While varied, the democratic processes introduced represent a substantial departure from the status quo, which in these locations tends to be traditional leadership by elder male chiefs who hold hereditary positions.

D. Connection to the formal state

How do VDCs relate to decentralized democracy? VDCs generally operate below the lowest tier of the formal state, and are elected (or otherwise selected) for the purposes and under the auspices of the CDD project. Fostering ties between these community structures and local tiers of formal government is an explicit goal, and CDD often complements broader decentralization reforms. How closely CDD operations connect to the formal state can be viewed as a continuum.

At the far end, CDD operates as a stop gap measure to provide essential public services in the presence of central government failure. The operations in DRC are consistent with this, and were implemented by a non-governmental organization (NGO). Moving closer, it can be viewed as a grassroots complement that works from the ground up to connect with the formal state as it extends

downward from the center to more local levels. The project in Sierra Leone, for example, provided grants to both villages and ward development committees, where the latter are chaired by the lowest formally elected government official. Project administrators there and elsewhere sit within or are directly overseen by domestic government agencies.

The formality of the universal suffrage, secret ballot VDC elections in Afghanistan moves a step further. Myerson (2017) cites the design of this project as one that holds promise as a breeding ground for local leaders in the context of larger state building efforts. He argues that a critical function of decentralized democracy is to afford local leaders an opportunity to build political reputations based on responsibly managing public funds, which they can leverage to move upwards and compete for higher level office (Myerson 2011). If CDD opens such opportunities, it could increase the supply of local political leaders capable of entering formal government. Whether it does so is an empirical question that merits further investigation.²

E. Toward synthesis

The many distinct ways in which the basic components of CDD manifest across context offer both challenges and an opportunity for the meta-analyst. Implementation details likely matter in explaining variation in performance (see Duflo 2017), as do the considerable differences in the social and political contexts where they are located. The small sample of studies, however, constrains our ability to say much about this. On the plus side, the fact that the same basic components were implemented in a wide variety of settings establishes a decent amount of external validity in thinking about what these programs can reasonably accomplish.

This article benefits from the insights of earlier review efforts. The early critique of Mansuri & Rao (2004) galvanized much of the research in this area. My own first review attempt was thwarted by the lack of evidence: unable to locate well-identified estimates of program impacts to synthesize, we instead wrote a practical guide to help CDD practitioners conduct more rigorous evaluations (Wassenich & [née] Whiteside 2004). Wong (2012) provides an excellent review of World Bank-funded CDD and social investment funds. King & Samii (2015) carefully delve into the specific issues of CDD in post-conflict settings. White et al. (2017) take a mixed methods approach that considers evidence from both RCTs and process evaluations. This article seeks to distill what we know about CDD, incorporating the very latest experimental results, and apply the accumulated evidence to general questions of decentralization, empowerment and local institutions in developing countries.

II. CDD As “Extreme” Decentralization

Let us first consider why CDD, as an extreme form of decentralization, might be appropriate. I then turn to all the reasons why it might fail, before assessing the current evidence about whether it actually “works.”

A. Why extreme decentralization might work

² I find only one estimate in the literature, which is null, about whether CDD communities are more likely to produce candidates who subsequently stand for local election (Casey et al. 2012 online appendix J).

On the fundamentals of fiscal federalism—heterogeneous tastes and minimal spillovers—locating control at the community level seems appropriate for the types of projects financed by CDD. As a revealed preference argument, sub-project choice varies across communities. The budget share of the most common project is typically around one third: 28% for irrigation in Afghanistan, 37% for roads in the Philippines, and 35% for community centers in Liberia (Beath et al. 2013c page 15; The World Bank 2013 page 10; Fearon et al. 2015 page 453).³ Moreover, preferences vary within communities. Labonne & Chase (2008), for instance, show that five different project types—roads, water, health, electricity, and livelihoods—were ranked as the top development priority by at least 10 percent of community members in preparing for CDD in the Philippines.

Spillovers are likely to be modest or nonexistent for most of these projects. Villages fully encapsulate the benefits and costs of items like single site wells and a repaired roof on the community school. Several projects further support largely private returns captured by individuals, like agricultural inputs, skills training or microfinance (the latter comprises 17% of KDP projects, Voss 2012 page 6). Road projects generally run within the village or connect the village to nearby fields or feeder roads, and irrigation and power are typically at the community level as well. High transport costs between remote rural communities limit the scope for economies of scale.

Encouragingly, decentralization of government functions to non-state community actors has been effective in other areas, for example in monitoring frontline service providers. The motivation there is to reduce information asymmetries and better align the incentives of providers, as agents, with those of the community, as the principal. Applying this same rationale to infrastructure, CDD eliminates all divergence between user and provider by making them one in the same. Evidence from Uganda suggests that meetings between local residents and health clinic staff improved healthcare delivery and health outcomes in both the short and long run (Bjorkman & Svensson 2009, Bjorkman Nyqvist et al. 2017). To give “power to the people,” facilitators built the capacity of residents, promoted wide participation, and provided information on service provision. Success, however, depends heavily on resources invested: a light touch program that focused solely on participation was less effective, which may be informative for considering impacts of CDD projects that were relatively light in terms of block grants or facilitation, or both (Figure 2). Similarly in Kenya, Duflo et al. (2015) find that giving parents, via school management committees, training and greater influence over school governance improves learning outcomes. Committee members were trained in interviewing, recruiting and monitoring the performance of contract teachers hired to supplement the civil service work force. Their involvement reduced nepotism in hiring and mitigated the negative effort response by permanent teachers.

A similar tradeoff between superior local information and the risk of elite capture that Bardhan (2002) emphasizes for decentralization is at the heart of debates about how best to ensure that social safety nets reach (only) the poor. Galasso & Ravallion (2005) study a food for education program in Bangladesh that relies heavily on community involvement in identifying poor recipients. They find that nearly all of the pro-poor targeting can be attributed to within village targeting, while the central government allocation across villages is essentially poverty neutral.

³ Larger top shares in Sierra Leone and Indonesia reflect coarser sub-project categorizations: e.g. the 66% spent on “public infrastructure” in KDP spans roads, bridges and irrigation projects (Voss 2012 page 6).

Alatas et al. (2012) experimentally compare community based targeting to proxy means tests (PMT) for a cash transfer program in Indonesia. They find that while community methods underperform the PMT on the basis of consumption, the differences are small. Moreover, they find that satisfaction with the program is markedly higher under the community approach, and find no evidence that elite capture undermines the community method.

B. ... And why extreme decentralization might fail

Not all the evidence on community-based monitoring is positive. For education, Banerjee et al. (2008) find that efforts to increase community participation in school oversight in India, via providing information and learning assessment tools, failed to improve learning outcomes. Within CDD itself, Olken (2007) finds that community participation in overseeing roads built under KDP failed to curtail leakage. While distributing invitations to village accountability meetings increased attendance by 40 percent, it did not lead to a commensurate reduction in missing expenditures. By contrast, increasing the probability of audit by a central government agency reduced missing expenditures by 8 percentage points. This suggests that some functions, like coercive power to limit corruption, are better left to more central tiers of administration.

Lastly, consider a few aspects of CDD design and implementation that work against finding any evidence of impacts in the literature. First, the difficulty of the operating environments could mean that implementation was not completed for any variety of reasons. Second, the money involved is relatively small, roughly five dollars per beneficiary per year, averaged across projects. Third, the fundamental role of choice, which unlocks the efficiency gains of decentralized provision, means that the block grants fund a wide variety of investments. This implies that treatment effects on any single dimension will be smaller in magnitude than a more targeted intervention of comparable efficacy, and further predicts that analysis may be underpowered in some areas given the sample sizes under consideration. Finally, some programs involved competition at higher levels of aggregation to allocate funds, implying that not all treated villages received their own sub-project.

C. Does CDD work as decentralized infrastructure provision?

Let us begin with a simple meta-analysis to systematically synthesize the available evidence regarding CDD impacts on local public goods and material welfare. Meta-analysis works reasonably well here because the outcomes (e.g. existence of a function water well) are comparable across settings and readily quantifiable. I limit consideration to treatment effects that are identified off experimental variation (that compares communities randomly assigned either to participate in CDD or a control condition that receives no program) to maintain the highest standard of proof (I broaden discussion to include quasi-experimental estimates at the end of this section).

The choice element inherent to CDD adds some complication, as the relevant set of public goods, and hence the areas where one would expect to see changes in material welfare, is broad and variable. In response, I rely on bundles of outcomes defined by the respective research teams, which leverages their local institutional knowledge and minimizes selectivity introduced by the meta-analyst. Several reviewed studies pre-specified hypotheses and underlying outcomes for these domains, making the execution of this strategy relatively straightforward. I focus on estimates for mean effects indices that are expressed in standard deviation units (see Kling et al.

2007). I aggregate estimates across studies using inverse precision weights. Specifically, I compute:

$$\beta^* = \left(\sum_j \beta_j * \frac{1}{\sigma_j^2} \right) / \left(\sum_j \frac{1}{\sigma_j^2} \right) \quad (1)$$

with associated standard error

$$\sigma^* = \sqrt{1 / \left(\sum_j \frac{1}{\sigma_j^2} \right)} \quad (2)$$

where β_j is the reported coefficient in study j , with standard error σ_j , from a regression of a mean index of outcomes on an indicator variable for CDD treatment, with accompanying controls that vary by study. A couple caveats are in order. As apparent in Figures 1 and 2, both the content of the CDD program and the empirical context vary widely. Thus the treatments evaluated are not identical and may further interact with local economic and institutional features in unknown ways. And, the small number of experimental studies available implies that meta-estimates will be sensitive to the addition of future experiments.

Table 1 presents results. Overall, I find that CDD is associated with a 0.119 standard deviation unit increase in the bundle of local public goods, which is highly statistically significant (standard error 0.025). This estimate captures tangible gains in the existence and functionality of a broad array of public infrastructure, driven by the large and precise estimates from Afghanistan and Sierra Leone. Estimates for economic welfare in Panel B are also positive and highly significant, although somewhat smaller in magnitude: 0.075 standard deviation units (standard error 0.017). This captures gains in household assets, employment and community-level market activity, and reflects the substantial and precise effects captured in Liberia and Sierra Leone. Note that estimates from the DRC are close to zero for both public goods and economic welfare. To give a better sense of what these estimates imply for changes on the ground, and the research designs that generate the underlying data, I next describe each study in turn.

[INSERT TABLE 1 ABOUT HERE]

Consider first the NSP in Afghanistan, as it has the most generous grants among the large experimental studies. As background, the evaluation spanned 500 villages, with baseline data gathered in 2007 followed by an endline in 2011 (see Beath et al. 2013c, 2016). Regarding access to public goods and utilities, the authors find that the projects that commanded the largest expenditure shares—irrigation and transport—produced no tangible impacts in their sectoral areas; while the next two—water and sanitation and power—generated substantial benefits in access to clean drinking water and increased electricity usage. For economic activity, while they find evidence for positive effects on people’s perceptions of their economic wellbeing, these do not bear out in the objective measures of household assets, income or consumption that are used in the meta-analysis. The lack of income effects is perhaps unsurprising given the result that the irrigation and road projects failed to improve agricultural productivity or market connectivity, and the fact that very few project resources (3 percent) supported skills training or business development.

Evidence from the Sierra Leone program is the most positive. The study covered 236 villages with baseline date in 2005 and endline in 2009 (Casey et al. 2012). The authors evaluate twelve hypotheses, two of which are relevant here. The large positive treatment effect in Panel A covers 18 outcomes compiled in an inventory of local public infrastructure, and reflects gains in functional latrines, community centers, agriculture drying floors and traditional birth attendant huts. Additional tests find positive impacts on the quality of facility construction. Estimated effects on 15 measures of material welfare are also large and capture improvements in household assets and market activity, like the number of goods on sale. Note that GoBifo communities chose a relatively large share of potentially income generating projects: over half was spent on agriculture, livestock, skills training and small business start-up capital.

Interpreting the mixed evidence from Liberia depends on how one aggregates estimates across the multiple underlying outcomes. The program ran in 42 communities (with 43 controls) from 2006 to 2008. Scanning the proportion of significant estimates across the 15 distinct measures of public goods suggests limited positive effects, while those for material welfare are mostly null (Fearon et al. 2009b). When I transform their original data into mean effects indices for the purpose of meta-analysis, however, I find an average result that is null for public goods and modestly positive for economic welfare.

There is little evidence for program impacts in the DRC in either the short or medium run. Humphreys et al. (2012) study the first, village-level component of Tuungane that began in 2007 with an experiment that spans 560 communities and captures impacts three years into implementation. The authors find no evidence of effects on access to public services or health and schooling outcomes. Economic estimates for agriculture production, assets and quality of dwelling are all null, and the estimate for household income is in fact negative. Laudati et al. (2017) return to the field five years later and their estimates (used in Table 1) capture a second round of funding (roughly \$4 per capita per year) that was accompanied by more intensive facilitation. They find evidence for some positive effects on the quality of health and education infrastructure, accompanied by no detectable changes in the quality of services provided, associated education and health outcomes, and economic welfare.

High quality quasi-experimental research in Indonesia and the Philippines rounds out the body of available evidence. Voss (2008, 2012) uses propensity score matching and differences-in-differences to estimate the effects of KDP and its successor, PNPM-Rural, across 300 *kecamatan*. For KDP, he finds consumption gains for the poorest households (of 11 percentage points), but no overall program effect. Subsequently, he documents a nine percentage point improvement in household per capita consumption overall, with the largest gains for the poorest quintiles. Both studies find small positive effects on employment, larger effects on utilization of outpatient services, and null results for schooling. In the Philippines, a similar methodology (on a much smaller sample of 16 municipalities) suggests that road projects built under KALAHYON-CIDSS increased household accessibility and mobility, while education and health indicators did not change (The World Bank 2013). Evidence there regarding economic welfare is inconclusive and sensitive to specification choice (Labonne 2015). A subsequent randomized control trial evaluates the same CDD intervention from 2011 to 2015 across 198 municipalities. At the time of writing, only the executive summary is publicly available and suggests a similar pattern: positive impacts

in transport and water infrastructure, combined with null effects on agricultural productivity, education and poverty status (Beatty et al. 2017).

Overall, the meta-analysis results and broader literature review suggest that communities are capable of effectively managing grants to provide small-scale infrastructure, and that these investments deliver some positive effects on material welfare. In short, this evidence supports the idea that CDD can work as an extreme form of decentralization.

D. What do we learn about decentralization more generally?

Explorations of CDD shed light on several dimensions of decentralized governance, including local capacity, elite capture, the benefits of participation, and sustainability. I take each in turn.

i. Local capacity

Concerns about weak local capacity and elite capture figure prominently in debates about decentralization in developing countries (Bardhan 2002, Bardhan & Mookherjee 2000, 2006). At least in the contexts studied here, capacity constraints do not appear to inhibit the roll out of basic infrastructure. Impressionistically, these communities are making a relatively modest amount of money go a long way. Their success seems sensible in light of the largely non-technical nature of investments (and use of contractors for technical matters), and independence from a sustained stream of inputs from the state.

As an extension, communities demonstrate capacity to implement public sector improvements under less guidance. In a “hybrid” CDD-cash transfer program in Indonesia, communities effectively implemented block grants toward achieving health and education targets. Olken et al. (2014) evaluated these block grants via an experiment on enormous scale, covering 3,000 villages, and find that communities made substantial progress on all 12 performance measures after 30 months.⁴

Not all communities, however, are equally capable. Anderson & Magruder (2017) revisit the Sierra Leone data using split sample econometric techniques and uncover evidence for heterogeneity with respect to village size. They find that GoBifo was less effective in providing local public goods, increasing access to information and fostering participation in larger communities. These findings are consistent with coordination challenges increasing in group size (Olson 1965), although the first result may reflect lower per capita investments given the uniform allocation of grant amounts.

While direct evidence on diversion is thin, leakage does not appear to be particularly high in these programs. Estimates place the amount of unaccounted for funds at 13% in Sierra Leone and 27% in Indonesia (Casey et al. 2012, Olken 2007).

ii. Elite capture and participation

Platteau & Gaspart (2003) identify elite capture as a critical risk to CDD programs and warn donor agencies against rolling them out too quickly should resources not reach the poor. In response,

⁴ Half of the treated communities received financial performance-based incentives on top of the block grants. I focus here on the non-incentivized group as it is closer to the standard CDD model.

studies speak to three related questions: whose preferences are reflected in CDD-funded projects, how much elite capture is there in the status quo, and does the participatory nature of CDD curtail capture?

On the first question, Labonne & Chase (2009) compare *ex ante* data on household priorities to the sub-projects put forward to and funded by the CDD program in the Philippines. They find evidence that projects do in fact reflect local preferences, consistent with making development responsive to local demand. While they find no evidence that chosen projects align better with the preferences of wealthier or more educated households, they also find little *ex ante* differences in what these groups desired.

To answer the second two questions, research teams in Sierra Leone gave communities an asset that could be used for either public or private purposes (specifically a tarpaulin or large plastic sheet used for drying grains or patching roofs) with no conditionality on its use. A surprise visit several weeks later uncovered little evidence of elite capture: of the 90% of villages who were using the tarp, nearly all (86%) put it to public purpose and 57% of households reported directly benefiting from it (Casey et al. 2012). Moreover, the study finds no evidence that participation in the GoBifo program had any influence on the degree of capture nor the incidence of benefits.

By contrast, Beath et al. (2017) both uncover more evidence of elite capture and find that participation requirements reduce it in Afghanistan. Within NSP villages, they randomized whether projects were selected via secret ballot referenda or consultative meetings that leave the ultimate decision to the VDC. They find that voting reduces the influence of elite male preferences over the type of project selected and moves project locations further from the village headman's house. At the same time, they find no evidence that the decision rule impacts project implementation speed or household benefits.

Beyond the question of capture, participation appears to have related intrinsic benefits. The NSP study finds that people in referenda villages viewed the local economic and political situation more favorably at midline, although the effects dissipated by endline. Olken (2010) experimentally adjusted the number of people directly involved in choosing a project from (on average) 48 village representatives in the status quo KDP method, to 807 voters in direct vote plebiscites. He finds that while direct democracy had little effect on the type of project selected or its geographic location, it had sizeable positive effects on satisfaction. Residents in plebiscite areas felt that the project better reflected their wishes, saw it as being chosen more fairly and thought it more likely to benefit them.

These last two studies document a value of participation that is largely divorced from the efficacy of infrastructure projects. What is missing from the literature is evidence on the extent to which participation—and exactly how much of it—is necessary to secure the positive public goods and economic results. This matters for two reasons. First, participation is costly: attending meetings to select, plan, budget for, implement and oversee projects takes time away from other activities. If opportunity costs are high, this burden could be significant. Moreover, explicit requirements for all of these activities to include the poorest and most marginalized groups start to look like a regressive tax. Note that these participation costs are above and beyond standard requirements to contribute money or labor to community construction projects, which are also substantial and more

regressive than formal taxation (Olken and Singhal 2011). Second, the instrumental value of participation may well deteriorate as people get tired. In the Alatas et al. (2012) targeting study, discussed earlier, community performance in identifying poor households deteriorates as the ranking meeting progresses. This leaves us with difficult questions about optimizing participation requirements to maximize instrumental and intrinsic benefits, while minimizing impositions on poor people's time.

iii. Sustainability

While the development community places increasing emphasis on the sustainability of investments, its attainment remains elusive. Research from Kenya underscores the size of this challenge. Gugerty & Miguel (2005) find that nearly half of borehole wells funded by an international donor were not functioning within ten years of construction, despite efforts to mobilize community management committees. Kremer & Miguel (2007) show that efforts to increase the sustainability of deworming treatments via cost-recovery, health education and mobilization all failed, and conclude that one-off interventions to sustain voluntary public goods are an "illusion." Sustainability has several meanings, from financial sustainability that is free of subsidization to the physical endurance of infrastructure that remains functional over time. CDD advocates focus on the latter and argue that community control over the original investment decision better aligns spending with local demand and thereby leads to greater utilization and maintenance (Dongier et al. 2002). The empirical evidence here is sparse, however new results coming out of Sierra Leone are optimistic.

Survey teams revisited all 236 villages in the GoBifo experiment in 2016, nearly twelve years after the program launched (Casey et al. 2018). The estimated treatment effect for the same local public infrastructure index reported in Table 1 remains positive and in fact, is not statistically distinguishable from that measured over seven years prior. The persistent gains are substantial: GoBifo communities are nearly twice as likely to have functional agricultural drying floors and nearly three times as likely to have a grain store (compared to 18 and 12 percent of control villages, respectively). The estimate for economic effects diminishes by roughly one third, from 0.38 to 0.24 standard deviation units, but remains large in magnitude and highly significant. These long run results shift the cost-benefit calculation in a positive direction: the heavy facilitation and participation requirements look less costly if they play an integral role in safeguarding the initial financial investment over time. As a counterpoint, however, recall that the long run estimates from the DRC are mostly null.

iv. Compared to what?

A thorny question for this literature is whether the infrastructure would have been better provided via some other mechanism. The ultimate decentralization test would compare community provision to that by local government, which has not yet been done and is a priority for future research.

III. CDD as a Vehicle of Empowerment

Recall that a key motivation for "why CDD?" is the argument that it "empowers poor people, builds social capital, and strengthens governance" (Dongier et al. 2002 page 301). This is the path

through which CDD can have a transformational impact on communities that survives after direct program activity ends. Synthesizing findings here is challenging, as it is near impossible to find a sufficient statistic that fully captures these broad concepts of empowerment and democratic change, and in particular, one that is measured in a standardized way across studies.

The good news is that this is the domain where some of the richest, most interesting data has been collected. Each experimental evaluation tackles an aspect of empowerment or institutional performance via direct observation, mitigating the social desirability biases inherent in survey responses. These range from unobtrusively recording who speaks in a community meeting, to how much real money residents contribute to new development projects, to how well VDCs manage the distribution of aid to needy households. This generates five well-identified estimates of CDD impacts on distinct aspects of empowerment in real world situations, each in its particular context. So instead of estimating an average effect across studies via meta-analysis, I pair the best measures of observed behavior from each study to the conceptual arguments for how CDD affects individual participation, institutions and social capital. Note that these measurement exercises were generally implemented after project programming concluded, so evaluate whether CDD triggers *persistent* changes in how communities operate and organize themselves. Table 2 summarizes the measurement strategy and key estimates from each study.

[INSERT TABLE 2 ABOUT HERE]

A. Participation and inclusion

Participation quotas for historically marginalized groups, by spurring learning-by-doing or positive demonstration effects, are a key conceptual channel linking CDD practices to persistent changes in social norms. As a starting point to assess these claims, data from Sierra Leone and the DRC confirms that exclusion is indeed prevalent, particularly as it relates to women's voice in local governance. To measure this in a credible way, researchers in both places created a naturalistic opportunity to observe both CDD and control communities holding a comparable public deliberation. In Sierra Leone, teams offered communities a choice between two assets (bags of salt or a crate of batteries) as a token of appreciation, and unobtrusively observed how communities decided which asset to accept. In control communities, they find that men on average spoke twice as frequently as women in these meetings, and that of the twenty or so women who attended only two said anything at all (Casey et al. 2012). In the DRC, researchers called a meeting to introduce a new cash transfer opportunity and find that the great majority (71%) of people who made a public comment were men (Humphreys et al. 2015).

Importantly, however, neither study finds evidence that the observed patterns of participation and inclusion are any different in communities that had recently participated in CDD. In both settings, women in CDD treatment communities were no more likely to attend or make public comments during these meetings. Decision-making also appears no more democratic procedurally: in neither case were CDD communities more likely to take a vote nor less likely to revert to chief dominance of the deliberation. Furthermore, the DRC program experimentally varied whether the VDC required gender parity and find it makes little difference: while the requirement increased representation on the VDC (from 31 to 50%), it did not affect the types of sub-projects chosen during implementation, attitudes towards female empowerment, or any observable behaviors in

relation to the new cash transfer (van der Windt et al. 2016). These null results are echoed in more traditional survey-based measures and in quasi-experimental studies. In Indonesia, for example, Voss (2012) reports high rates of female participation in project related meetings (48%), yet finds no evidence that this translates into concrete gains for women. Despite large estimated gains in consumption associated with CDD in the sample overall, he finds null effects for female-headed households, whose inclusion was an explicit target of the program.

While most studies find no evidence that CDD induces changes in gender norms, the results from Afghanistan are worth careful consideration. Observation of *purdah*, which shields women from the public eye and precludes their participation in communal gatherings, represents the most conservative status quo considered and makes local governance a “strictly male-dominated activity” (Beath et al. 2013a page 6). Relative to other programs, the NSP introduced the largest gender inclusion shock: mandating gender parity on the VDC, elected by universal suffrage, which the authors describe as “radical” in this context (Beath et al. 2013b page 540). Across some 82 outcome measures concerning women, estimated treatment effects are positive and at least marginally statistically significant for 32 percent,⁵ which is much larger than one would expect due to chance variation in the data. This suggests that something progressive occurred for women in relation to this program.

How transformative these effects are is less clear. Estimated effect sizes are small, around three percent of a standard deviation on average. Many of the positive effects capture perceptions or items closely related to program implementation, with fewer impacts on concrete outcomes outside the project sphere. For example, requiring gender parity on the VDC led to a somewhat mechanical, although durable, increase in the number of villages with at least one female on a local council. It did not, however, change women’s views about how well these councils represented them. Some positive effects for concrete outcomes include an increase in girls school attendance (by 0.28 days per week), prenatal care visits (by seven percentage points), and women’s self-reported voting in Parliamentary elections (by six percentage points). There is little evidence to support changes in other concrete behaviors, like women working or exerting influence over household decisions.

While it is clear that women occupy a subordinate position in these societies, there is not a lot of evidence to support the idea that CDD transforms their status in any durable way. When thinking about the somewhat more positive results in Afghanistan, it is worth noting that gender inclusion was mandated by explicit quotas in democratic elections. This draws a natural parallel to the work on effects of gender quotas in *panchayat* elections in India, which introduce larger changes in existing power relations, give women control over substantial financial resources, and led to more pronounced effects on women’s voice in politics (Chattopadhyay & Duflo 2004, Beaman et al. 2009, Bhavani 2009).

B. Institutions and collective action

Recall that establishing a VDC and providing an opportunity to learn-by-doing implementing projects is hypothesized to improve local governance and sustainably reduce the coordinating costs

⁵ Author’s calculations based on Appendix II, endline results without baseline controls, in Beath, Christia and Enikolopov (2013c). See also Beath, Christia and Enikolopov (2013b) for midline results.

for future collective action. To assess this hypothesis, two studies directly observe local governance functions and one measures contributions to a real stakes public goods game.

The meetings in the DRC discussed above were organized in order to offer communities \$1,000 to use for village level projects with few stipulations. Humphreys et al. (2012, 2015) evaluated how communities used these transfers through a combination of financial audits, household surveys and enumerator observation, and find no evidence that CDD communities performed better – or more democratically – along metrics of participation, accountability, efficiency, transparency and capture.

The gender parity VDCs established under NSP in Afghanistan differ greatly from customary institutions, which are dominated by elder males occupying positions that are inherited or allocated based on land holdings (Beath et al. 2013a). Researchers examine how these two institutions manage the distribution of food aid to poor households. In NSP villages, they further vary whether the distribution team asked the VDC to manage the process, or instead contacted the customary authorities. In both cases, they compare aid distribution outcomes to those in control communities where customary leaders are in charge. They find that where the VDC was in charge, pro-poor targeting performance was better, however customary leaders performed just as well on four other metrics. Thus while CDD introduced variation in the composition of leadership, ultimate performance is quite similar to the status quo. Where the VDC was not explicitly given distribution authority, however, embezzlement was worse and participation in the process lower. This suggests two things: the creation of elected VDCs did not have positive spillover effects on existing institutions; and institutional competition with no clear checks and balances increased rent extraction, broadly consistent with theoretical predictions of Shleifer & Vishny (1993) and Persson et al. (1997).

The most optimistic evidence regarding collective action capacity comes from Liberia. Fearon et al. (2015) find that residents of CDR communities contributed more money to a matching funds experiment, the revenues of which were earmarked for a local development project. Two variants of the game were implemented—one with gender parity and another with solely female players—and the treatment effects are concentrated entirely in the mixed gender groups. The authors interpret this difference as evidence that CDD practices better equipped communities to deal with novel opportunities, like the mixed gender game, however were not applied to more familiar situations, for which existing structures (like women’s associations) were already established.

The crux of the matter is that the institutional arrangements introduced by CDD are not adopted by communities for other types of decisions, and they further do not exert procedural spillover effects on traditional institutions. Wong (2012) describes the lack of broader adoption as the “project bubble” phenomenon (page 43). Voss (2012) refers to it as “requirement satisfaction,” which leads community members to follow the new procedures in implementing project activities “but not embrace the principles behind them” (page 20). Note that the explicit incentives to use the new institutions disappear with the conclusion of the project. Thus, general adoption would have to arise from learning-by-doing that convinces community members that they prefer the new institutions (either because they like them intrinsically or think they work better, or both) and they would need to possess the requisite political will to change existing power dynamics. This is a tall

order. What, if anything, can be changed within the CDD framework to address this problem is unclear, and may be unattainable.

C. Social capital

Insufficient social capital, when viewed as the norms that facilitate collective action, could impede community ability to self-organize for initiatives that advance local development and CDD aims to ameliorate this constraint.

In Sudan, researchers measured social capital in two ways: they mapped out social connections among community members and had them play lab-in-the-field experiments designed to capture social norms. This CDD experiment was small in scale, randomly assigned to 16 of 24 sampled communities, and the program had an explicit focus on repairing social cohesion post-war (Avdeenko & Gilligan 2015). The study finds that the network of social relationships among 24 randomly selected residents is, if anything, smaller in CDD communities. They further find no evidence that participation in CDD impacts prosocial behaviors in the lab, including real stakes donations to needy families, class trust games and public goods contributions.

More traditional survey-based measures yield similar results. Treatment effect estimates on responses to bundles of questions about trust are null in Sierra Leone, Afghanistan, Liberia, Indonesia and the Philippines, and only marginally statistically significant in the DRC (Casey et al. 2012 Table II, Beath et al. 2013c Table 68, Fearon et al. 2015 Figure 2, Voss 2012 Table 9, The World Bank 2013 Table 32, Humphreys et al. 2012 Table 27). Early concerns that CDD was in fact crowding out other social activities in the Philippines (Labonne & Chase 2011) were not substantiated in later experimental estimates, which find no evidence for change – positive or negative – in social interactions (Beatty et al. 2017). There is similarly little evidence that CDD affects the frequency with which communities come together in meetings after program operations conclude (Fearon et al. 2009 Table 8; Casey et al. 2013; Beath et al. 2013c Table 45).

In interpreting these null results, one thing that comes out clearly in the data is that levels of social capital appear to be fairly high in these communities already. Levels of trust in other community members, who are the key constituents to cooperate with in providing village-level goods, are high across the board: fully 95 percent of respondents in Sierra Leone, 93% in the DRC, and 85% in Afghanistan would entrust another community member with financial transactions. Similarly, at baseline in the Philippines 76% of respondents “trust that others are willing to help if needed” and in Liberia 66% agree that “people in this town are willing to cooperate to improve things for the community” (The World Bank 2013 page 66, Fearon et al. 2009 page 21).

Interconnections between people are also strong. In Sierra Leone, for example, three quarters of respondents reported that they were a member of at least one social group (Casey et al. 2013). That number was lower in the Philippines, at 32%, but seems reasonably meaningful (The World Bank 2013 page 66). In Sudan, social ties are dense: among the randomly selected residents for the lab experiments, a given resident was on average related by family to 22 percent, and attended the same mosque as 39 percent, of the other selected residents (Avdeenko & Gilligan 2015 page 435). For women in Afghanistan, who are highly constrained in activity outside the home, nearly 80%

in control areas report that they socialize with other women and nearly 100% know a household in a different village (Beath et al. 2013c page 88).

Thus it seems plausible that there is already sufficient social capital to facilitate collective action within the community. While these studies find no evidence that CDD enhances measures of such localized social capital, like trust and social networks, this may be a moot point.

It could still be the case, though, that social capital deficits upwards constrain the ability to seek assistance from government, NGOs or influential individuals. At the weak end, in Sudan only six percent of control group respondents indicated that in the past three years they had contacted “an influential person about a problem in the community,” and only five percent had lobbied government or NGOs for support in the DRC (Avdeenko & Gilligan 2015 pp 441-2; Humphreys et al. 2012 page 54). In Afghanistan, 19% of control villages had been visited by a district government official in the past year (Beath et al. 2013c page 73). Estimates in Sierra Leone look stronger: one third of control communities had been visited in the past year by the lowest elected official in the formal state; and nearly a third claimed that they had taken a project proposal to an NGO or government office for funding (Casey et al. 2012 online appendix J).

While varied across context, communities may well be prohibitively disconnected from government and other potential sources of much needed physical capital. While this constraint appears more important than ties within the community, there is also little evidence to suggest that CDD alleviates it. To illustrate, consider one concrete example from Sierra Leone. The research team gave out vouchers that could be redeemed for a substantial discount (33%) at local building material supply stores. Taking full advantage of this “money on the table” (there was no prohibition on immediate resale) required a nontrivial co-pay. About half the villages took up this offer, with no discernable difference by treatment status (Casey et al. 2012). One interpretation of this is that CDD did not build upward social capital, for example to people of influence or wealth outside the village, who could help communities avail of this opportunity.

Reflecting back on Table 2 and the intervening discussion, it seems unlikely that these null results on empowerment and institutional change are a result of measurement error. As a group, the studies utilize a markedly diverse and innovative set of measures to capture these complex phenomena, and combine them with more conventional data from surveys of households and local leaders. Thus any institutional change that escapes detection across this diversity of approaches is likely of little real world import.

D. Did it make things worse?

Not all foreign aid is beneficial (Easterly 2006), so it is critical to understand whether CDD made communities worse off, particularly in light of the fragile security situation in host countries. Nunn & Qian (2014), for example, argue that US food aid worsens civil conflict in recipient countries; and Cilliers et al. (2016) show how post-war truth and reconciliation ceremonies repaired community cohesion at the expense of individual mental health in Sierra Leone. By introducing scarce resources in insecure environments, CDD could create attractive expropriation targets for insurgents and/or foment conflict amongst recipients.

Available evidence on insurgency effects is mixed. In Afghanistan, Beath et al. (2016) find that the NSP decreased insurgent violence overall, however violence worsened in the two study districts that border Pakistan. In the border regions, the authors argue that the NSP locations became targets for attack by (mostly foreign) insurgents. Crost et al. (2014) exploit the discontinuity in poverty scores that qualifies municipalities for KALAH-CIDSS to estimate effects of CDD on conflict in the Philippines. Note first that fully 37 percent of municipalities in their sample have some insurgent presence. They find evidence of an increase in conflict casualties, borne primarily by government forces responding to insurgent activity, in barely eligible, as compared to just ineligible, municipalities. The increase occurred in the early program preparation stage, before funds began flowing, and led a disproportionate number of these communities to drop out. The authors interpret this as evidence of insurgents attempting, with some success, to sabotage the program for political purposes.

No study considered here presents evidence that CDD increased conflict within communities. The list of null effects is long and covers eight measures of crime and conflict in Sierra Leone, four measures of disputes and their resolution in Afghanistan, fourteen measures of social tensions in Liberia, and nine measures of social cleavages in the DRC (Casey et al. 2012; Beath et al. 2013c; Fearon et al. 2009; Humphreys et al. 2012). Careful qualitative work suggests that while KDP introduces tensions over resources in Indonesia, the resulting conflicts are much less likely to turn violent when compared to those induced by other development programs (Barron et al. 2006).

IV. Directions for Future Research

The accumulated evidence regarding community-driven development as an experiment in radical decentralization and empowerment leaves us with several questions for future research.

From a policy perspective, the evidence on the efficacy of CDD in delivering public infrastructure and economic returns is encouraging. These successes are noteworthy in light of the modest sums of money involved and challenging operational contexts. Getting the most out of finite resources, however, will require additional research on two related dimensions.

The first involves the amount of participation we ask of beneficiaries. It seems plausible that programmatic emphasis on broad-based participation and transparency are in part responsible for securing the observed gains in infrastructure and material welfare. Such an argument suggests an instrumental value of participation, which experimental evidence from Afghanistan specifically documents for reducing elite capture. Evidence from there and Indonesia further substantiates an intrinsic value of participation in increasing satisfaction with the development experience. A point that has received less attention is the idea that participation places a burden on beneficiaries, whose opportunity costs may be high. Thus a central question moving forward is how much participation is needed to safeguard the efficiency gains of decentralization, deliver intrinsic benefits, and minimize opportunity costs on poor people's time. Difficulty pricing some of these factors may prevent a precise answer to this, however careful consideration seems worthwhile.

The second asks a similar question about social facilitation. Establishing local procedures that deliver maximal gains, and are seen as fair and legitimate by participants, requires skilled implementation teams. We have seen that the amount of resources dedicated to these teams varies

widely across CDD initiatives and in Sierra Leone reaches nearly dollar for dollar with infrastructure grants. Since these resources could also be allocated to communities directly via the grants, it is important to better understand how much facilitation is sufficient. Future research that exogenously varied the intensity of facilitation within a given program would be useful to both optimize CDD operations and shed some light on the heterogeneous effects observed across projects.

Remaining questions are versions of the perennial “compared to what?” challenge. While CDD appears to effectively deliver local public goods, the formal state could also be assigned these tasks. Where best to locate control, over the broad mix of public goods involved (from latrines to schools to electrical power), is an important question for academia and policy. Given the scale at which some of these evaluations are currently operating, it does not seem necessarily infeasible to make these comparisons in a rigorous way.

A real accomplishment of the community-driven approach lies in its efficacy in some of the poorest and most insecure environments, where the central government has clearly failed to meet local development needs. Pragmatically, this seems like an appropriate stop-gap measure. Moving forward, and with an eye on sustainably building state capacity, these resources may eventually be better spent providing technical assistance to local government and working on fixes to the incentive and accountability problems that plague the public service.

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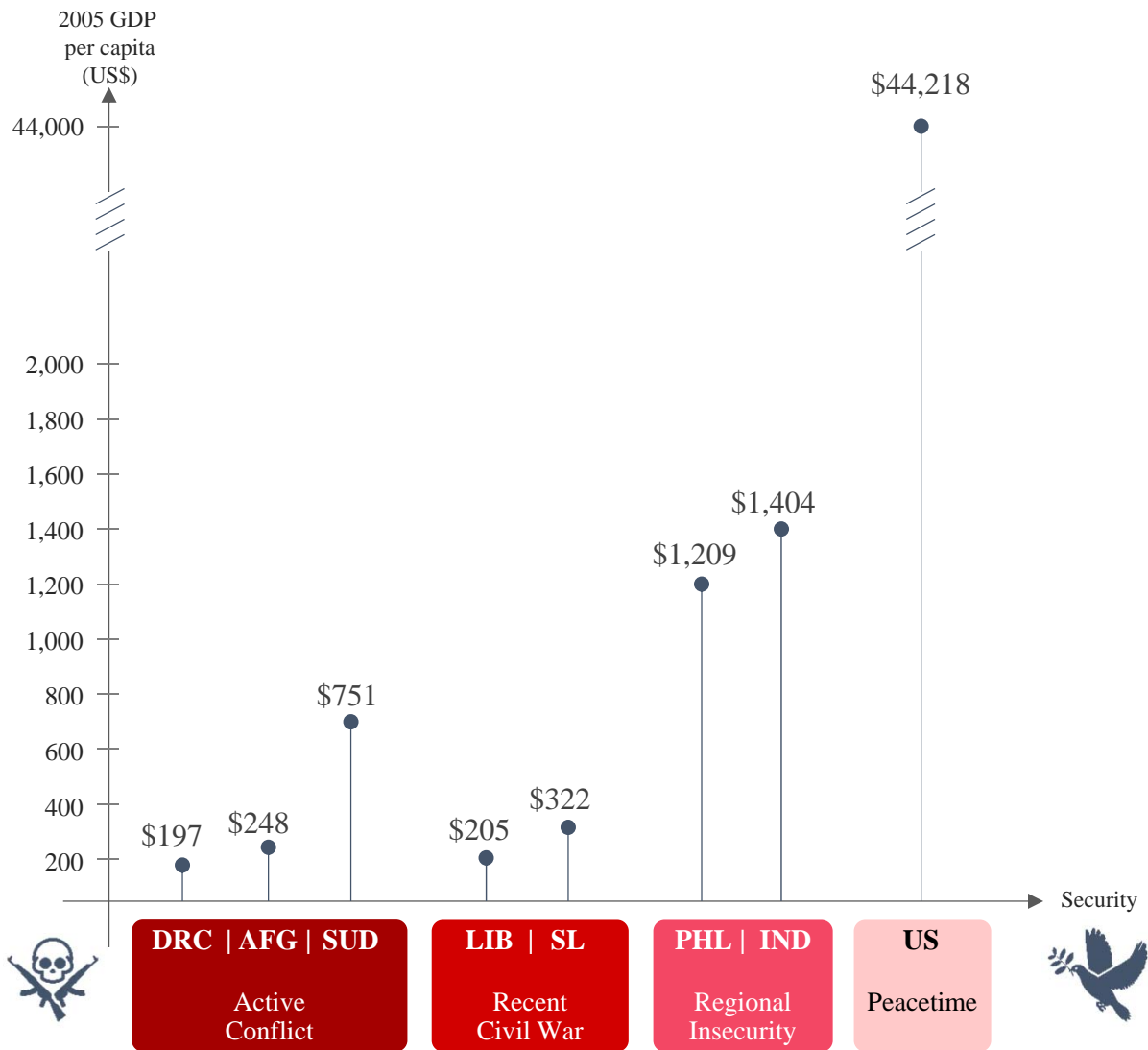
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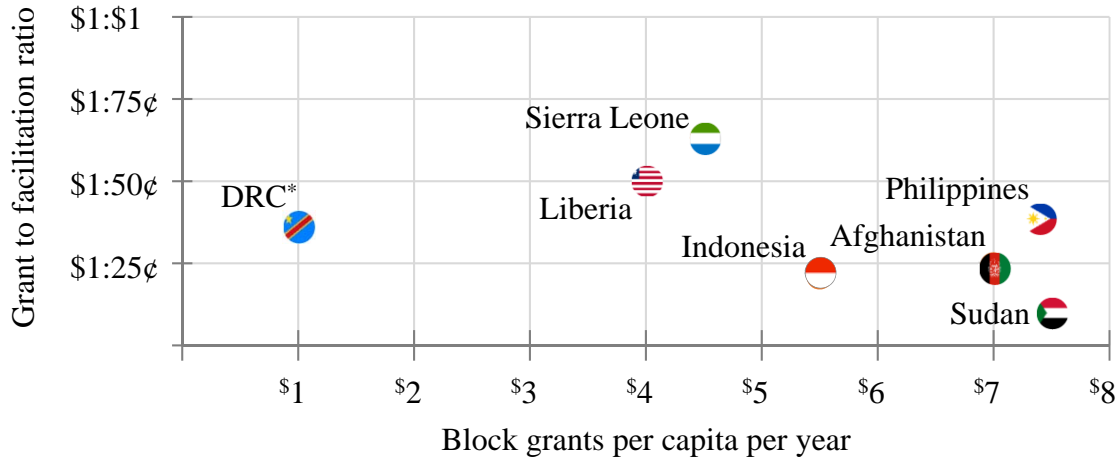
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Figure 1: CDD Operating Environments in Perspective



Data source: International Monetary Fund (2017).

Figure 2: Variation in Project Intensity



* Grant to facilitation ratio imputed at group mean for the DRC due to lack of reliable project data.

Sources: DRC is Humphreys et al. 2012 page 18; Liberia is Fearon et al. 2009 pp. 4-6 and author email communication; Sierra Leone is Casey et al. 2011 pp. 11-14; Indonesia is Wong 2012 page 37 and 62; Afghanistan is Beath et al. 2013c page viii and footnote 3 and Government of Afghanistan 2017; Philippines is The World Bank 2013 page 11 and The World Bank 2014 page 5; and Sudan is author email communication.

Table 1: Precision-weighted Meta-Analysis of CDD Impacts

Study	Panel A: Local Public Goods Index				Panel B: Economic Welfare Index			
	Treatment effect	Standard error	Total outcomes	Source	Treatment effect	Standard error	Total outcomes	Source
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Afghanistan	0.123	(0.043)	6	Table 6, column 3	0.015	(0.024)	4	Table 6, column 1
DRC	0.013	(0.085)	104	Table 9-22, last column	-0.090	(0.060)	5	Table 25, column 6
Liberia	-0.027	(0.058)	15	Table 1-3, reanalysis	0.089	(0.032)	5	Table 4-5, reanalysis
Sierra Leone	0.204	(0.039)	18	Table II, column 1	0.376	(0.047)	15	Table II, column 1
Meta-analysis	0.119	(0.025)	standard deviation units		0.075	(0.017)	standard deviation units	

Notes: i) columns 1 and 5 present the average treatment effect (ATE) reported in each study, estimated for an equally weighted mean effects index (MEI) across the total number of outcomes listed in columns 3 and 7, expressed in standard deviation units; ii) meta-analysis estimates in the final row aggregate the study-level ATEs using inverse precision weights; iii) the reference article for Afghanistan is Beath et al 2016, DRC is Laudati et al 2017, Liberia is Fearon et al 2009, and Sierra Leone is Casey et al 2012; iv) Beath et al. 2013c compute mean effects estimates for broader sets of outcomes than Beath et al. 2016 used above (however do not report the standard error needed for the meta-analysis), those estimates are relatively smaller for public goods and larger for economic welfare, both are positive and significant; v) for panel A, I aggregate the 14 distinct MEI estimates reported in the DRC study by weighting each ATE and standard error by its share of the outcomes covered; and vi) estimates for Liberia in panels A-B are based on the author's reanalysis of Fearon et al 2014 replication data that computes mean effects indices while adhering as closely as possible to the original specifications in the 2009 study, noting two deviations - I use a principal component analysis asset score and aggregate all outcomes to the household level.

Table 2: CDD Impacts on Directly Observed Institutions and Collective Behavior

Results	Description
Null	Field teams in Sierra Leone presented communities with a choice between two small assets and discretely observed the resulting deliberation process. The study finds no evidence for CDD impacts on how participatory or inclusive the decision-making process was, as measured by the number of participants, duration of the deliberation, number of public speakers, frequency with which women spoke, or the occurrence of democratic processes like voting. The treatment effect estimate on a mean effects index of 33 related outcomes is 0.00 (standard error 0.04). Source: Casey et al 2012 Table V.
Null	Researchers in the DRC introduced an unconditional cash transfer of \$1,000 to communities for a development project and observed how communities managed the grants. They find no evidence that CDD impacted who was in charge of the project, how the community decided which project to implement, the amount of funds that could be verified in field audits, or how many people benefited from the project. Source: Humphreys et al 2012, Tables 6, 8, 21, 22.
Mixed	The Afghanistan study compared the performance of the democratically elected councils established under NSP to customary leaders in distributing food aid to needy households. They directly measure targeting performance, embezzlement, nepotism and participation in the distribution process. When given a clear mandate to manage the distribution, the councils performed better than customary leaders on one of five measures. Where there was no mandate, however, performance was significantly worse on two of five measures. (All remaining estimates of comparative performance are null). Source: Beath et al 2013 Tables 3, 7.
Positive	In Liberia, field teams presented communities with a collective action opportunity whereby they could receive up to \$420 for a development project, depending on the level of contributions by 24 randomly selected residents in a public goods game. Players in CDD communities contributed 17 additional Liberian dollars (standard error 8) or 7.5% more than the average contribution in control areas. These effects were concentrated entirely in games where the set of players was a mix of men and women, with no effect in the women's only groups. Source: Fearon et al 2015 Table 2.
Null	In Sudan, research teams invited 24 randomly selected residents in each community to play lab-in-the-field games designed to measure social capital. In games that provide an opportunity to donate to a needy family, trust another community member with a financial transfer, and contribute to a public good, they find no evidence that CDD altered pro-social behavior. The treatment effect on a mean index of these measures is -0.12 (standard error 0.08). Source: Avdeenko and Gilligan 2015, Table 5.