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The Regressive Demands of Demand-Driven Development

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Abstract

Despite their explicit focus on reaching the poor, many community driven development (CDD) projects have been found to be only mildly pro-poor in their funding allocations. This paper presents evidence of an explanation that has been overlooked in the CDD literature to date: the requirement that beneficiaries must apply for projects in order to receive support. The authors first examine data on the universe of project applications and funding under Tanzania's flagship CDD program, Tanzania's Social Action Fund, and then use a census of 100 program villages to examine the determinants of both program awareness and program participation at the household level. The data paint a consistent picture at both levels: wealth, access to information, and political capital are important correlates of the ability to navigate the application process successfully. The centrally dictated features of this decentralized program appear to be the most effective mechanisms in directing funds to the poor. The results suggest that unless demand-driven projects can develop ways of soliciting engagement from a broader cross-section of the population, they are unlikely to achieve truly progressive targeting.

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The Regressive Demands of Demand-Driven Development

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1. Introduction

Over the past two decades, community-driven or community based development (CDD/CBD) has become an increasingly common way to distribute public assistance, and is intended to provide a variety of benefits including better poverty targeting, improved social capital, and capacity building at the local government level. Mansuri and Rao (forthcoming) estimate that the World Bank allocated \$32 billion for CBD and CDD development projects between 1999 and 2007. They argue that the current wave of interest in localized participatory development started as a reaction to "top-down" development aid that was "... deeply disconnected from the needs of the poor, the marginalized, and the excluded (p. 2)."

Social Funds projects, which were created in the 1980s to mitigate the impacts of structural adjustment programs, allow local stakeholders to determine investment decisions (World Bank, 2002). Over time, these projects took on many of the characteristics of CBD programs and became an important part of the social protection strategy in many countries. While social funds initially funded public goods from a menu of infrastructure projects that communities could choose from, they have recently been used to deliver private goods to the poor, such as cash transfers or grants for income generating activities.

Despite the fact that the poor are explicitly the target group for most of these programs, the empirical literature on targeting performance shows that they tend to be only moderately propoor. For example, World Bank (2002) found that "...social funds projects have delivered slightly more than proportional benefits to the poor and the poorest. (p. xi)" Given their demanddriven nature, the beneficiaries of these programs are determined by who applies and who, having applied, gets approved. The literature before us has examined the determinants of being a program beneficiary (i.e. the final allocations) in great detail, but we know of no studies that decompose targeting performance into applications and, conditional on application, selection.

In this paper, we exploit a unique combination of datasets to examine the application and selection processes at the national and household levels. At the national level, we combine data on the universe of project applications and final funding allocations in Tanzania's Social Action Fund (TASAF II) with a poverty map, census data, and voting data at the ward level to distinguish determinants of applications from determinants of funding conditional of having

applied.¹ We then complement this analysis at the micro level using data from 100 villages across five districts to assess respondents' awareness of TASAF II and their likelihood of benefitting from it. Because we have data on every household in these program villages, we are able to examine the relative roles of eligibility, access to information, and political connectedness in exceptional detail.

At both the national and local levels, our data paint a remarkably consistent picture. At the national level, the application process is regressive with project applications significantly more likely to come from richer districts. This pattern is strongly correlated with variation in access to media and information and with political participation across districts, such as voter registration and turnout. The subsequent project approval process is pro-poor, due largely to the pre-determined funding allocations made from the center to the districts. The progressive selection of projects from an initially skewed pool of applications reproduces the familiar finding of mildly pro-poor final funding allocations in the literature that precedes us.

Similarly, at the local level, awareness of TASAF II (which is necessary to apply) is positively correlated with education, ownership of a radio or phone, attending village meetings, and being related to village elites. Among those who heard of TASAF II, program beneficiaries are poorer, but also still more likely to be politically active and live close to the village center. Again, while the eligibility criteria imposed by the center ensures that the program is pro-poor, we find little evidence of pro-poor selection of beneficiaries within villages conditional on eligibility.

These results point to the importance of political involvement and access to information in determining who is able even to be considered by TASAF II for potential support. Communities must mobilize to agree on and file applications, and households must typically participate proactively in order to claim assistance for which they are eligible. Being marginalized or poorly educated is likely to make program awareness less likely and navigating the application process more difficult.

Several empirical papers have similarly attempted to measure the relative performance of national and local-level governments in poverty targeting. Galasso and Ravallion (2005) analyze the Food-for-Education program in Bangladesh, and find that "...the program is mildly propoor" and find no evidence that the center is targeting poor villages. Alderman (2002) similarly

¹ The hierarchy of administrative units in Tanzania is Region, District, Division, Ward, and Village.

finds that local officials improve targeting performance by using information not available to the center. Ravallion (2000) shows that only one-third of the improvement in reaching the poor under Argentina's Trabajar II program was due to the center's ability to reach poor provinces, with the rest attributable to better targeting within provinces.² In contrast, studies of social funds indicate that while the center is somewhat successful in allocating resources to poor areas, it is less successful in ensuring that poor households (or poorer communities within these poor areas) benefit more from these programs (World Bank, 2002).³ Targeting performance, especially at the central and the district levels, depend largely on the availability of data, and the political will to use these data, to target poor areas.⁴

The primary argument that has emerged from the literature so far as to why CDD programs fail to reach the poor is the idea of elite capture (Bardhan and Mookherjee 2000, 2005). A number of studies have examined the differences in policy preferences across elite and nonelite groups (Dasgupta and Beard, 2007; Olken, 2007; Platteau and Gaspart, 2003; Rao and Ibanez, 2003) and the role of local inequality in permitting elite capture (Araujo et al., 2008; Conning and Kevane, 2002; Galasso and Ravallion, 2005). Most relevant to this paper, local political elites can steer funds towards themselves, their extended families, kinship networks, and constituencies (Arcand et al., 2006; Besley et al., 2007; Camacho and Conover, 2011). When community development funds are used for political purposes they can also influence targeting performance (Cox and McCubbins, 1986; Dixit and Londregan, 1996; Khemani, 2010; Schady, 2000), while corruption can divert scarce resources away from their intended targets (Reinikka and Svensson, 2004).

The strong roles played by access to information and political involvement in our data raise the question of whether a form of 'informational capture' is at play. In practice, social funds typically engage in promotion (or sensitization) campaigns to try to disseminate information about the availability of funds and program rules as broadly as possible. Many also provide

² Mansuri and Rao (forthcoming), summarizing the evidence on the performance of the central vs. the local authorities on allocating private transfers, find that such programs are mildly pro-poor at best with the targeting performance slightly better at the local level.

³ For example, Paxson and Schady (1999) found in Peru that "there was no intra-district targeting," and that the funds "reached poor districts and, to the extent they lived in those districts, poor households" (Paxson and Schady, 2002).

⁴ For example, Galasso and Ravallion (2005) report that all Thanas in Bangladesh benefited from the Food-for-Education program because of political considerations and note that this is not uncommon. Ravallion (2000) describes improvements in Argentina's Trabajar II program due to a reallocation of resources across provinces using provincial poverty indicators and also giving incentives to provinces for reaching the poor.

outreach (or facilitation) to help poor communities through the project application process (World Bank, 2002). Existing evidence on the effects of widespread dissemination of information suggests that such sensitization efforts should reduce capture (Francken, Minten, and Swinnen, 2009; Reinikka and Svensson, 2011; Shankar, Gaiha, and Jha, 2011). However, further inspection suggests that such sensitization may be subject to perverse incentives. If, for example, central or district level officials rely on local leaders and/or elites to promote these programs, they may be reluctant to spread the word extensively in order to steer benefits towards themselves, their extended families, kinship networks, or individuals with whom they have patron client relationship – creating a conflict of interest. Such conflicts of interest are likely to be felt most strongly at the local level when sensitizers are themselves potential beneficiaries and when the beneficiary pool is small. This reasoning suggests that even in the case of sensitization, centralized implementation and incentive compatible structures may be needed to neutralize the potentially regressive nature of demand-driven development. ⁵ We return to a discussion of this issue in the conclusion.

The remainder of the paper is structured as follows. Section 2 describes TASAF II in more detail while Sections 3 and 4 discuss the data and the estimation strategy. The results at the national and the local levels are presented in Sections 5 and 6, respectively. Section 7 concludes.

2. Tanzania's Social Action Fund Second Phase (TASAF II)

TASAF is a 120 million dollar project relatively typical of large social funds program in Sub-Saharan Africa. In its second phase (TASAF II), up to one-third of all Tanzanian villages were expected to receive a sub-project by the end of 2010. Sub-projects target three main beneficiary groups (intervention types): service poor communities (improvement of social services and infrastructure), food insecure households (public works programs where beneficiaries receive cash for work) and vulnerable groups, such as the elderly, people with disabilities, widows, orphans, and those affected by HIV/AIDS (grants for income generating activities).

⁵ Olken (2007) finds that while central audits significantly reduced corruption in road construction projects in Indonesia, community monitoring had negligible effects.

TASAF II applications go through an elaborate screening process to guard against the types of elite capture documented in other community development programs. TASAF conducted a sensitization campaign in which every one of Tanzania's 11,000 villages were supposed to be visited by an official from the district and given information about the program and how to apply. There are six key steps in the application process. All villages in Tanzania first go through a sensitization process where they are made aware of the application process through outreach and training. Applications are then submitted by villages through a form called a Sub-Project Interest Form (SPIF) which is filled out by village officials and delivered to the district TASAF office. This then goes through a district level sector expert review that judges the technical merit of each application. Next, a facilitator from the TASAF II district office undertakes an Extended Participatory Rural Appraisal (EPRA) which consists of a business plan and budget review, an environmental review, and a pairwise ranking exercise that guarantees that the project applied for is indeed the one desired by the village.⁶ Based on the village decision, a Sub-Project Application Form (SPAF) gets filled and is sent for approval at the District office and by the District Assembly's Finance Committee. Completed SPAFs are finally sent for review by the TASAF II Management Unit in Dar es Salaam, and are endorsed for funding barring procedural issues.

This process is designed to be participatory, in that villages are required to undertake a number of coordinated actions in order to initiate the application process and verify the application. It is quite rigid, in that applications will be rejected by district officials or by the center if they do not satisfy the technical requirements. It is decentralized in that project selection takes place at the village level, and all of the important steps of application screening are done by district officials. The central office of TASAF II does not reject applications that have been properly submitted by district officials, reinforcing the idea that once the funding formula has been set and funds have been disbursed to the districts, this process is driven entirely by district-and village-level decision making. The allocations from the center to the districts under the predetermined funding formula were based on a weighted score calculated using three variables: population (40%), geographical size (20%), and poverty headcount ratio (40%). Since using

⁶ In the pairwise ranking exercise the whole village is called to a meeting, divided into groups by demographics, asked to come forward with a number of different project suggestions, and then village votes on pair-wise combinations of these potential projects.

these criteria alone could cause vast differences between district councils' allocations, 25% of the National Village Fund (NVF, TASAF IIs main spending vehicle) was first distributed equally to all councils. The remaining amount was then distributed using the composite index. We now turn to more details of the data sources used in the analysis.

3. Data

3.1. Institutional Data from TASAF

This paper utilizes two main databases from TASAF II. The first of these datasets documents every application received by TASAF II between May of 2004 and October of 2007, for a total of 102,606 applications. More than 95% of the 2,542 wards in mainland Tanzania submitted at least one application, with the median ward submitting 14. The second institutional database describes every TASAF II project funded through August 2008, and gives details of the beneficiaries, project type, and budgets for each of the 4,037 projects funded. This database also shows the composition of funding provided by the NVF, local government authorities, and the community itself. NVF spending typically makes up about 80% of total project costs, and is never below 50%. We merge these datasets at the ward level to calculate the number of applications, the percentage of applications funded, and the total amount spent from each source per ward.

3.2. Poverty Maps

The institutional data on applications, approvals, and funding are overlaid with poverty maps, also at the ward level, created by the authors using the method described in Elbers, Lanjouw, and Lanjouw (2003). This exercise uses the household surveys from Tanzania's 2000/01 Household and Budget Survey (HBS) and the 2002 Population and Housing Census, both conducted by the National Bureau of Statistics (NBS). The HBS is a nationally representative sample of 22,178 households sampled between May 2000 and June 2001. The HBS is a much richer survey than the census, containing information on a wide range of outcomes including demographics, education, health status, and ownership of durable assets. The detail of the HBS allows the construction of a rigorous consumption aggregate, but the survey is not representative at the district, let alone ward, level. Log per capita household consumption can be modeled in the HBS sample using variables that exist in both datasets and then the parameter estimates can be used to simulate per capita consumption for each household in the census.

These predicted consumption figures are then used to calculate poverty and inequality measures for every ward in the country. The poverty mapping data are missing for the islands of Zanzibar and Pemba, and so we restrict our analysis to mainland Tanzania.

Poverty maps are typically used by policy makers to distribute funding across large administrative units, such as districts or provinces, but not smaller ones, such as wards, because the standard errors for the poverty and inequality estimates become unacceptably large as the population size of the units decline. However, in this study, we are only using these estimates at the ward level to estimate the relationship between poverty and the likelihood of applying for and receiving TASAF II funds. In this sense, the larger standard errors at the ward level should only cause attenuation bias, which would drive the effects presented in Sections 5 and 6 to zero and therefore decrease our ability to draw inferences with confidence.

3.3.Electoral Data

The final data used in the national analysis are from the 2005 presidential, parliamentary, and ward councilor elections. All data are available online at the website of the National Electoral Commission of Tanzania.⁷ The presidential and parliamentary results are at the constituency level⁸, the councilor elections are at the ward level, and the electoral data is merged with the TASAF II institutional data and the poverty maps by ward. The elections took place prior to the announcement of the awards of TASAF II projects, and hence we take political outcomes as predetermined, and seek to understand how voter registration and turnout, as well as voting patterns, relate to application, approval, and funding patterns.

We calculate *voter turnout* and *voter registration;* the former given by the ratio of valid votes to registered voters in a ward, and the latter by the ratio of registered voters to population in a ward. Both of these variables are intended to measure the political activism of a ward, a feature which may make a unit more attractive as a target of pork-barreling, or may indicate a heightened level of collective action.⁹

We also define independent variables based on these ward-level electoral outcomes that let us test several dimensions across which funding and political behavior may be linked. Given

⁷ Data available from <u>http://www.nec.go.tz/</u>

⁸ The constituency is a region defined for electoral purposes. The 232 constituencies in Tanzania are typically larger than a ward but smaller than a division.

⁹ Because the voter registration rate is also driven by demographics (in that one must be of age to vote in order to register), we control for the ward-level dependency ratio in our regression models that include voting variables.

the huge majority by which *Chama Cha Mapinduzi (CCM)* candidate Jakaya Kikwete was elected to office (over 80% of the overall vote, and higher than that in the mainland part of the country studied here) the presidential vote share is not particularly informative. Similarly, 72% of the votes cast in parliamentary elections went to the CCM; however, in ward councilor elections the ruling party is less dominant. We therefore use the vote share for the CCM at the ward councilor level to measure *intensity* of local-level support for the ruling party. We also construct two co-party indicator variables, which signify that the ward councilor and the parliamentarian are from the same party. The first of these is a dummy indicating any cases in which the national and local-level politicians are from the same party. Given the dominant and unique position of the CCM, we then define a separate co-party dummy for cases in which the councilor and parliamentarian are both from the same party but this party is not the CCM. The omitted category for these two dummies is any ward in which the councilor is from a different party than the parliamentarian.¹⁰

3.4. Household Survey Data

The survey data come from a listing exercise and household survey conducted in five districts of Tanzania between June and December of 2008. First, five districts were selected that were intended to be broadly representative of the country as a whole: these are Moshi, Kwimba, Lushoto, Makete, and Nzega. Within these study districts, TASAF officials were asked to provide 20 villages in which 'Vulnerable Groups' applications had moved through the submission process to the point at which they were ready to be funded, but had not yet received any money. Thus while the districts that form the study are in some general sense representative, the sample of villages was selected based on an endogenous criterion: being at a specific stage in the VG application process. Within the 100 study villages, we interviewed every household using a short listing survey, providing a census of 61,611 households. Each household was then sorted into one of the following strata:

- Village elites (Village Executive Officer, or VEO, and the village chairman, or the VC),
- **Ineligible households** (i.e. households with no vulnerable individuals as defined by TASAF and described above in Section 1),

¹⁰ Co-party dummy always equals one when the non-CCM co-party equals one, so this dummy tests for a differential effect of non-CCM co-parties versus CCM co-parties.

- Eligible non-beneficiaries (households with at least one vulnerable individual but not benefitting from any VG sub-projects),
- VG Beneficiaries (households with at least one vulnerable individual and benefitting from a VG sub-project). This group was further stratified into two groups:
 - VG group leaders (chairperson, secretary, and treasurer, who hold signatory power over group accounts), and
 - VG "rank and file" members (the rest of the group conducting the proposed income generating activity with no signatory powers over the group accounts)

Within each village, a short listing survey was given to every household. The short listing survey collected basic demographic information about the household (e.g. household size and age of the eldest household members), GPS data, and determined whether or not the household contained a vulnerable member. A long listing survey was given to all village elites, all households with vulnerable members (including VG beneficiaries and eligible non-beneficiaries – 38,871 households in total), and to a randomly selected sample of ineligible households. The long listing survey collected more detailed data, including household amenities, characteristics of the household head, holdings of assets, and basic consumption data. From within this sample, a smaller, random stratified (using the strata described above) sub-sample was selected to receive a detailed household survey.

In each of the 100 villages, a household survey was conducted with the two village elites, the three group leaders from each TASAF II group, three randomly sampled households from all "eligible non-beneficiaries" in each village, and three randomly selected households from all "ineligible" households in each village. Hence, in a typical village with one TASAF II group funded to run an income generating activity, the sample size was 14. There were 1,544 households that completed the household survey in the 100 villages. The household survey contained detailed consumption data at the household level, limited consumption data at the individual level, as well as collecting information on distance to the village center, the education of the household head, asset ownership, participation in village meetings, whether household members hold political office in the village, and blood relationships between household memberships and village elites.

There are 2,542 wards in 119 districts in mainland Tanzania. The poverty mapping data is unavailable for 86 of these wards. Out of these, the ward councilor elections were uncontested in

254 wards, depriving us of any electoral outcome data besides the party of the victor, meaning that regressions using vote shares and turnout are conducted on the 2,202 wards for which both poverty and electoral data are available.¹¹ 67 of these wards submitted no applications to TASAF II, and so the analysis of the percent of applications funded is conducted in 2,135 wards. Table 1 provides summary statistics on the ward-level sample in the left panel, and on the household survey data in the right.

4. Estimation Strategy

Our estimation strategy is influenced by Galasso and Ravallion (2005) who provide an empirical structure for testing the additional contribution of local information gained through decentralization. In particular, they define the information set held by the central planners and then use a household dataset to construct a much richer definition of 'eligibility' for the program than was available to central bureaucrats. They then attribute the additional poverty targeting achieved above and beyond that coming from the planners' information set as the benefits arising from decentralized targeting. Our approach is inspired by this structure in the sense that the only component of TASAF II that was centrally dictated was the allocation of funds to the districts, and therefore all within-district targeting arises from the actions of decentralized agents. We therefore decompose the variation in targeting efficiency into a cross-district (centralized) and a within-district (decentralized) component. Using this structure, we can separately isolate the role of the clearly defined funding formula that drives allocation to the districts, and the complex decentralized process through which the districts allocate funding to the lower administrative levels.

For each specification we present the univariate correlation between the headcount index and the outcome of interest. We then present a multivariate linear regression using an additional battery of controls, and we econometrically decompose the overall targeting efficiency into a between-district and a within-district component. Specifically, for ward i in district j, we estimate:

¹¹ Uncontested wards are slightly less likely to submit applications than other wards, but are not different in terms of poverty or funding than the contested wards included in the expanded analysis.

Pooled OLS:	$y_{id} = \beta_0 + \beta_1 P_{id} + \beta_2 X_{id} + \beta_3 Z_{id} + \mathcal{E}_{id}$	(1)
Between districts:	$\overline{y}_d = \beta_0 + \beta_1 \overline{P}_d + \beta_2 \overline{X}_d + \beta_3 \overline{Z}_d + \varepsilon_d$	(2)
Within districts only:	$y_{id} = \alpha_d + \beta_1 P_{id} + \beta_2 X_{id} + \beta_3 Z_{id} + \varepsilon_{id}$	(3)

where, y_{id} is the incidence of spending (or the number of applications or the percentage of applications funded) per thousand people in the ward, P_{id} is the poverty headcount ratio at the ward level, and X_{id} and Z_{id} give a broader set of socio-economic and political controls. Equation (1) is estimated through pooled OLS, equation (2) is estimated at the district level using district averages, and equation (3) includes district-level fixed effects and hence is identified using only within-district variation across wards.

5. Targeting Performance at the National Level

5.1. Funding (and Number of Projects) per Capita

The typical analysis of targeting performance in Social Funds programs examines the incidence of spending among the poor relative to the population as a whole. To demonstrate that the targeting performance of TASAF II is not substantially different than those found in previous studies (World Bank 2002), Table 2 provides a first look at the incidence of TASAF II expenditures. The first two columns use the amount of money spent through TASAF II's NVF per person per ward as the dependent variable. When we regress this variable on the ward-level poverty headcount ratio, we see progressive targeting that is statistically precise but relatively muted in economic significance. The marginal effects indicate that a ward going from being universally non-poor to universally poor would see TASAF II spending per person increase by only \$1.29 from a base of \$2.63. In other words, a one standard deviation increase in the poverty rate of a ward (an approximately 20 percentage point increase in the headcount ratio) would cause an increase of only \$0.25 per person or \$5,000 total in a ward with average population. These results are typical of the broader literature on CDD that show mildly pro-poor benefit-incidences. The results in the third and fourth columns, which analyze the number of TASAF II projects (rather than funding) per person, are very similar in interpretation and magnitude.

Using our rich set of covariates, we can then further analyze these results to understand whether TASAF II funding is progressive in a broader sense. In columns 2 and 4 of Table 2, we find that while targeting is progressive on core poverty metrics such as the poverty headcount index and literacy, it is also influenced by indicators of political activity and affiliation. Most strikingly, the pattern of targeting is strongly determined by the degree of political involvement of a ward's population: both voter registration and voter turnout have large effects on the allocation of TASAF II funds. The marginal effects can be directly compared to the poverty metric since each is measured as a share: our results indicate that a 10% increase in voter turnout is associated with an increase in TASAF II funding that is almost ten times as large as that associated with a 10% increase in the poverty headcount index. Furthermore, while funding does not respond to the vote share for the CCM, it is significantly *higher* in wards where national and local politicians are both from the CCM, and significantly *lower* where neither national nor local politicians are from the CCM.

These results provide the first evidence of a theme that manifests itself throughout the rest of our empirical analysis: community development projects, which are demand-driven, put the onus on local actors to pull funding towards themselves. They therefore reward constituencies that are mobilized and capable of overcoming collective action problems to successfully seek funding. Because we have rich data on both the demand-driven side of TASAF II (applications) as well as the centrally-driven selection process (approvals and rejections), we are able to shed light on the specific mechanisms through which this process manifests itself. We now turn to an analysis of applications.

5.2. Applications

To examine applications, we construct a dependent variable equal to the number of applications submitted by a ward to TASAF per 1,000 individuals. Fewer than 5% of wards submitted no applications, with a median of 1.2 and a mean of 3 applications per thousand people.¹² The first column of Table 3 gives the OLS relationship between the ward-level poverty rate and the number of applications per capita. The strong negative coefficient indicates that for every 10 percentage point increase in the poverty rate, the number of applications decreases by 0.46 per thousand people, or a decrease of more than 15% relative to the mean number of applications. Moving from a very rich to a very poor ward would reduce the number of project applications by more than 50%

¹² The average ward submits 39 applications, and the average district 834.

In column 2, we analyze the relationship between applications and the additional covariates from the previous table. With the addition of these controls, the poverty rate becomes insignificant, and the regressive nature of applications is explained by proxy indicators. We find that access to media (share of the population with a radio or a mobile phone), voter registration, and voter turnout are all strongly correlated with the number of applications. Furthermore, there are fewer applications from wards, in which both the local and the national representatives are non-CCM. Inequality level in the ward and the share of the ward that is rural are negatively correlated with the number of applications. In summary, whether we focus on the magnitude or the significance of the parameter estimates in column (2), we find that well-informed and politically active wards dominate the application process.

The funding process of TASAF II is divided into two very distinct parts; the centralized formula that allocates funds across districts, and then the decentralized process through which districts decide which projects to fund. We now use empirical specifications (2) and (3) to decompose the variation in applications into a cross-district component and a within-district component in order to be able to examine these two processes separately. This decomposition is important in the analysis of applications because, to the extent that heterogeneity in applications is cross-district, it is likely to be neutralized by the cross-district funding formula, while within-district heterogeneity is not. Columns (3)-(6) of Table 3 perform this decomposition. We find that the variation in the number of applications is explained almost entirely by differences between districts rather than within them. Districts that are less poor, have better access to the media, and are more politically active, flood the system with an inordinate amount of applications. We do not see any evidence that the variation in these characteristics within districts affects the number of applications. Hence, the results in columns (3)-(6) make it clear that the regressive selection in applications is almost entirely across districts.

5.3. Approvals and Rejections (conditional on application)

We now proceed to an analysis of the percentage of applications submitted by a ward that are approved and funded. This is an outcome defined only for wards that submit at least one application, thus we lose the 67 wards from our analysis in which no applications were submitted. This analysis, presented in Table 4, uses the same partitioning strategy as the previous table. The results reconcile the differences between Table 2, in which we saw mild pro-poor targeting of final funding allocations, and Table 3, in which we saw applications that were strongly regressive across districts. The strong cross-district regressivity in applications is effectively neutralized by the formula that allocates funding across districts, which fixes the amount of money available per district at the outset of the entire program. The progressivity injected into project selection is entirely cross-district, suggesting that it is in fact the *centralized* component of this decentralized program that makes it mildly pro-poor. It is also noteworthy that variables, such as access to information and political activity are not correlated with the funding decisions conditional on applications, consistent with the fact that the centralized funding formula to the districts did not include these characteristics.

Figure 1 illustrates how the regressive nature of the decentralized applications process is counteracted by the progressive centralized district funding formula. Here, we plot the smoothed number of applications and the acceptance rate over the distribution of poverty headcounts across wards. The heterogeneity is tremendous: the richest wards submit almost six applications per 1,000 people compared with less than two among wards with the highest poverty rates. The acceptance rates, on the other hand, increase from below 12% to over 15% across that same span. This finding suggests that the heterogeneity in applications is not simply arising from the expected probability of funding: application rates are highest in places where the funding rates are lowest and vice versa.

6. Targeting Performance at the Village Level

Our analysis of within-village targeting focuses on the Vulnerable Groups component (VG projects) of TASAF II because the data collected for this study was part of baseline data collection for the randomized study designed to assess the impact of this component on the creation of small enterprises and household welfare.¹³ The data at the household level allow the cross-examination of the earlier findings from the institutional data that we have used up to this point, because the surveys were conducted by an independent firm. To the extent that data coming from the program itself may contain accounting irregularities (ghost projects, efforts to cover up the misuse of funds, etc.), our own data collection allows us to independently verify the nature of targeting performance under this component of TASAF II.

¹³ Vulnerable Groups projects provide grants of 6-10 thousand dollars to groups of roughly 10 individuals from vulnerable households in order to finance an entrepreneurial activity. Typical activities for these groups are animal husbandry, beekeeping, tailoring, or the operation of milling machines. These projects thus generate an unusually private form of benefit relative to typical CDD programs.

6.1. Village-level Poverty Targeting Using Detailed Household Surveys

We begin the analysis of the household-level data by using the subset of our observations among which detailed household surveys were collected. These data allow us to calculate household-level consumption aggregates, and therefore to conduct an analysis of poverty at the local level. We use sampling weights to make this sample representative of the population in the 100 study villages.

Figure 2 shows the CDF of the consumption aggregate by stratum. We can see that the village elite have the lowest likelihood of being poor followed by non-vulnerable individuals and TASAF II VG group leaders. Vulnerable households, exogenously defined using the criteria devised by TASAF II, are poorer than non-vulnerable households and those who ended up in TASAF II VG groups as 'rank and file' members (i.e. **not** group leaders) form the poorest stratum. Using a lower bound poverty line (of 18,000 Tanzanian Shillings per capita per month), fewer than 20% of village elites are defined as being in poverty, whereas almost 60% of TASAF VG group 'rank and file' members are poor.

The vulnerability criterion is, in and of itself, a decent targeting criterion: the poverty rate among vulnerable households is 10 percentage points higher than non-vulnerable households (51% vs. 41%). However, inclusion and exclusion errors are many: there are many poor households that are not defined as vulnerable and many vulnerable households who are not poor. The within-village targeting, conditional on the vulnerability criterion, is very different for group leaders (who are substantially richer than the average eligible beneficiary) and group rank and file (who are substantially poorer). Hence, while the villages do a good job of forming TASAF II VG groups that are poorer than the eligible population in general, group leaders (who comprise 20-30% of the membership in these groups) are significantly richer than the average eligible household. Again, the combination of the targeting criteria from the center (vulnerability) and the within-village targeting process produces a targeting performance that is mildly pro-poor at the local level.

To understand this process more clearly, we now proceed to examine group membership under the TASAF II VG component, using a sequence of probit regressions. Table 5 moves through three steps in the selection process, clustering standard errors at the village level. In columns (1) and (2), we compare vulnerable households to the entire population of the 100 villages, thereby assessing the extent to which this centrally defined component of the targeting process is progressive. In column (1), we see that vulnerability as defined by TASAF is indeed pro-poor: vulnerable households are, on average, 5.4 percentage points more likely to be categorized as poor using our consumption aggregate and the lower-bound poverty line. Column (2) indicates that the vulnerability criterion identifies a group that is poorly educated rather than one that is poor conditional on education levels.

Columns (3) and (4) compare the actual beneficiaries of TASAF II VG projects to the entire eligible sample, i.e. the population of vulnerable households, and show that those selected to be recipients of TASAF II VG funds are not significantly poorer than the overall eligible sample. Instead, within those eligible to benefit from VG projects, the very same attributes that were shown to be influential at the national-level also determine membership at the local level: those who are more politically active (measured by attendance at village meetings), well-connected (measured by being a blood relative of village elites) and living closer to the village center are much more likely to be program beneficiaries than others. Finally, in columns (5) and (6), we compare group leaders to the 'rank and file' membership and find that they are substantially less likely to be poor, and much more likely to have completed primary education and to own a radio or a mobile phone.

These findings confirm the patterns of targeting performance found at the national level and presented above. Earlier, we found that wards with high levels of civic engagement and that party ties to district officials were more likely to receive funds at the national level. Here, we see that households engaged in local politics and have ties to local officials are more likely to be program beneficiaries as well. Hence, while the targeting of TASAF II projects is mildly propoor both at the national and at the local level, these projects (and funds) are also flowing towards households that have high levels of civic engagement and are connected to the local elites. Again, most of the successful targeting towards the poor in this decentralized development program appears to have come about because of the eligibility rules imposed by the center, rather than decisions taken at the local level.

6.2. Awareness of TASAF

The primary empirical contribution of our national-level analysis is the fact that we observe the universe of applications and, hence, can separate the demand-driven components of the program from the approval process. While we do not have an exact analogy for applications at the individual level (the applications are submitted with the beneficiary group already defined

under the VG component), we included a question in our census of 100 study villages that asks whether an individual had "ever heard of TASAF." We suggest that this variable provides a similar gateway that is necessary, but not sufficient, for an individual to be a program beneficiary: while many people who have heard of the program do not benefit, an individual who has not been informed as to the existence of the program cannot seek to benefit from it. Our data show that, among households eligible for TASAF II according to the exogenous vulnerability criteria, less than half of survey respondents had ever heard of the program. Non-vulnerable households, i.e. those who were ineligible to receive support under this program, were actually eight percentage points *more* likely to have heard of the program than the eligible non-beneficiaries. This finding is dismaying, indicating that half of the target population under TASAF II had never heard of TASAF at baseline, by which time, as described earlier, VG groups had been formed and were ready to be funded in each of these 100 villages.

We therefore conclude our empirical analysis by exploiting the village-level census of eligible households provided by the listing exercise in the 100 study villages with VG subprojects and examining the determinants of program awareness among eligible households, and the determinants of being a beneficiary among those who had heard of the program at baseline. This analysis uses the listing data, meaning that the sample size for the analysis is greatly enhanced relative to Table 5. However, detailed consumption data are not available for this larger sample, so we proxy per capita consumption (and poverty) with several simpler questions: the number of days in the past week that a household consumed proteins (meat, eggs, or milk).

In Table 6 we analyze awareness of TASAF within the eligible non-beneficiary sample. In columns (1) through (4), we cumulatively include covariates intended to proxy for wealth (consumption), information (proximity to village center, education, and ownership of radio/phone), political activity (attendance in village meetings) and political connectedness (household members holding office, blood relation to village elites, and benefitting from other development projects for vulnerable groups). The last row of the table presents an F-test on the joint significance of the coefficients newly added in that column. This analysis of the degree of program awareness is interesting because it is distinct from the earlier targeting analyses in being entirely and more broadly regressive: not only is program awareness regressive in education and access to media, as well as political activity and connectedness, but it is also regressive in consumption, with those households eating more protein-based diets more likely to be aware of the program (p-value<0.01). The majority of poorer, vulnerable, and marginalized households were not even aware of the program that was designed to assist them, which led to lower participation rates among the target population at the local level and caused a substantially lower number of applications from such areas at the national level.

Table 7 attempts to replicate the spirit of the national-level results on the probability of funding conditional on application (Table 4) by examining the determinants of actually receiving the program among households who were both eligible for and aware of TASAF at baseline. This is the group that is potentially capable of attempting to pull demand-driven benefits to themselves, and hence gives a metric of within-village targeting efficiency abstracting away from both eligibility and informational requirements. Within this group, we see that selection is progressive on socio-economic variables such as consumption of proteins and radio or mobile phone ownership. Once again, however, we see that that political activity and connectedness are powerful determinants of receiving benefits. Within this group, all else equal, an individual belonging to a household wherein a member holds village office is 11% more likely to be a TASAF II beneficiary, while a household that is already benefitting from another assistance project is 30% more likely to benefit from this new wave of projects.

7. Concluding Discussion and Policy Implications

In this study, we provide new quantitative evidence that the demand-driven nature of community development programs, i.e. the requirement that a household or a community has to submit an application in order to become a beneficiary, may in fact be hindering the ability of such programs to reach the poor. Examining a large social funds project in Tanzania, we find that project applications are much more likely to come from wards in richer districts. This regressive pattern in applications is strongly correlated with access to media and information, as well as political activity measured by voter registration and turnout rates. There is also some evidence that wards dominated by the opposition party produce a lower number of applications per person. Hence, the evidence at the national level suggests that information, civic engagement, and political affiliation are important determinants of seeking project funding from TASAF II.

Our analysis at the household level strongly mirrors these findings. We find that more than half of the eligible households had never heard of TASAF at baseline. Similar to the pattern for project applications at the ward level, we find that households who are more educated, have better access to media and information, active in village affairs, and related to village elites are substantially more likely to have heard of TASAF. Conditional on awareness, poorer households are more likely to become program beneficiaries, but the influence of political activity on beneficiary status remains strong.

The lack of applications from poor households and communities could be due to various factors, for which lack of information, proposed here, is but one. For example, it is possible that poor households (or communities) are aware of the program but are unable to navigate the system to produce valid applications. The evidence we have at the household level suggests that this may be part of the story: group leaders for the proposed income generating activities are substantially more educated, more likely to own phones and radios, and less likely to be poor than the "rank and file" members of these groups.¹⁴ It is likely that these individuals are instrumental in putting together viable project proposals and navigating the application process.¹⁵

Another possibility is that households and communities that are aware of TASAF II (and able to apply) nonetheless decide against doing so because of the costs associated with the projects. Many programs, including TASAF II, require that communities contribute a share of the project costs. While this is a reasonable hypothesis, our data do not support it: when we analyze applications separately for projects that require cost-sharing (infrastructure and public works) and those that do not (vulnerable groups), we get the same application patterns reported above (see Appendix table A1 for results). Finally, low application rates among the poor might arise if they rationally decide not to apply due to a perceived low probability of being approved. The data available to us also argue against this idea. Approval rates are *higher* in poorer wards, meaning that, if anything, application rates from these areas should be higher. Hence we conclude that the regressive pool of applications is likely to be arising from variation in access to

¹⁴ While these households are technically eligible, their average consumption levels are closer to non-vulnerable households than vulnerable ones.

¹⁵ It is important to recognize that the Vulnerable Groups component of TASAF II is not a palliative poverty reduction program, but rather aims to reduce poverty by making grants to groups of vulnerable individuals, who are supposed to invest the funds into a proposed income generating activity, and thereby creating a sustainable stream of income. If the successful creation of such small enterprises is much harder when groups consist entirely of uneducated, inexperienced, and marginalized individuals, then the inclusion of better educated, well-connected, and richer individuals – i.e. the very definition of group leaders described above – may make sense. Considered in this light, what may look like 'capture' or 'mistargeting' may actually be the key to the longer-term success of these income generating activities. An ongoing randomized impact evaluation of these subprojects will permit us to analyze this issue in great detail in the near future.

information (and perhaps in the ability to produce viable applications) and in civic engagement, rather than the high costs or low perceived benefits of applying.

We found that a simple predetermined formula to allocate funds from the center to the districts was the main reason for the program's mild success in reaching the poor – reversing the regressive nature of the application pool. In this case, the heterogeneity in applications turned out to be almost entirely across-district, meaning that a district-level funding formula is mechanically effective at unwinding this regressivity. In a different context with stronger localized variation in applications, the formula would have been less effective and the final funding allocations would have likely reflected the regressive application pattern. We conclude that program funds will be more likely to reach the poor to the extent that the center can directly target smaller administrative units – or induce local authorities to perform better by providing the necessary information and/or incentives.¹⁶ The initial propagation of information about the program and who are deemed eligible to benefit appear to be particularly important activities over which to maintain centralized control.

Any effort to quantify the incidence of spending in CDD projects must confront the question of what attributes are in fact optimal to target. Such programs may have other goals that clash with a narrow focus on targeting those who are consumption poor – especially in the short run. When central governments use quantified metrics of poverty to channel funds, then central government provision almost tautologically improves poverty targeting if these same metrics are used to analyze spending incidence. However, not only the priorities of local communities may be different than those of the center, but so can their definition of who is poor, vulnerable, or deserving of social assistance (Alatas et al., 2011). One of the benefits of decentralized decision-making and localized participatory development is to take advantage of idiosyncratic information at the local level (e.g. Alderman, 2002). Other goals include improving accountability, democratization of local politics by giving voice to previously marginalized groups, increasing social capital, and improving governance (Mansuri and Rao, forthcoming). These are broader goals that may well lead to a substantially improved allocation of social assistance funds in the

¹⁶ Ravallion (2000) finds that the improvement in the targeting performance of Trabajar II was in part due to the incentives provided by the center to the provinces for reaching poor areas. Baker and Grosh (1994) and Elbers et al. (2007) both find that targeting smaller administrative units, by using "poverty maps" or similar data, would produce large gains in poverty reduction.

longer run, but are unlikely to be aided much by centrally dictated rules on program eligibility or funding allocations.

Our study confirms findings in the literature with respect to the advantages enjoyed by local elites in decentralized programs, while suggesting a new culprit for this pattern. Despite the fact that community development projects are supposed to be designed to address the needs of the "poor, the marginalized, and the excluded", we find that these are exactly the groups among whom the awareness of the program is lowest. The importance of civic engagement and political connections permeates our results. Unlike measures of poverty, variables measuring political activity and connectedness increase both the demand-side probability to seek out the program *as well as* the supply-side probability of selection. The final distribution of program benefits thus ends up skewed heavily towards districts and wards with high voter registration and turnout, and towards households that have direct connections to village political elites. While our data do not allow us to distinguish active 'informational capture' by elites from the fact that marginalized groups are simply harder to sensitize, the informational regressivity that pervades this study motivates a strong focus on outreach efforts in CDD programs.

Community development programs require their potential beneficiaries to be aware of and fully participate in the entire process, but the ability to do so is not equitably distributed across the population. Rather, it is significantly lower among the poor, the vulnerable, and the marginalized. Inducing meaningful participation at the local levels remains the big hurdle for these programs to truly succeed.

References

Alatas, V., Banerjee, A., Hanna, R., Olken, B.A., and Tobias, J., forthcoming. "Targeting the Poor: Evidence from a Field Experiment in Indonesia," *American Economic Review*, forthcoming.

Alderman, H., 2002. "Do local officials know something we don't? Decentralization of targeted transfers in Albania," *Journal of Public Economics*, 82: 375-404.

Araujo, M. C., Ferreira, F.H.G., Lanjouw, P., and Özler, B., 2008. "Local inequality and project choice: Theory and evidence from Ecuador," *Journal of Public Economics*, 92(5-6): 1022-1046.

Arcand, J.-L., Bassole, L., and Tranchant, J.-P., 2006. "The Making of a (vice-) President: Party Politics, Ethnicity, Village Loyalty and Community-Driven Development," Working Papers 2006.33, CERDI.

Baker, J., and Grosh, M., 1994. "Poverty Reduction Through Geographic Targeting: How Well Does it Work?" *World Development*, 22(7): 983-995.

Bardhan, P., and Mookherjee, D., 2000. "Capture and governance at local and national levels," *American Economic Review*, 90(2): 135-139.

Bardhan, P., and Mookherjee, D., 2005. "Decentralizing antipoverty program delivery in developing countries," *Journal of Public Economics*, 89: 675-704.

Besley, T. Pande, R., and Rao, V., 2007. "Just Rewards? Local Politics and Public Resource Allocation in South India," STICERD - Development Economics Papers.

Camacho, A., and Conover, E., 2011. "Manipulation of Social Program Eligibility," *American Economic Journal: Economic Policy*, 3(2): 41-65.

Conning, J., and Kevane, M., 2002. "Community-based targeting mechanisms for social safety nets: a critical review," *World Development* 30(3): 375-394.

Cox, G., and McCubbins, M., 1986. "Electoral Politics as a Redistributive Game," *The Journal of Politics*, 48(2): 370-389.

Dasgupta, I., and Kanbur, R., 2005. "Community and anti-poverty targeting," *Journal of Economic Inequality*, 3: 281-302.

Dasgupta, A., and Beard, V.A., 2007. "Community-Driven Development, Collective Action, and Elite Capture in Indonesia," *Development and Change*, 38:229-249.

Dixit, A., and Londregan, J., 1996. "The Determinants of Success of Special Interests in Redistributive Politics," *The Journal of Politics*, 58(4): 1132-1155.

Elbers, C., Lanjouw, J.O., and Lanjouw, P., 2003. "Micro-Level Estimation of Poverty and Inequality." *Econometrica* 71(1): 355–364.

Elbers, C., Fujii, T., Lanjouw, P., Özler, B., and Yin, W., 2007. "Poverty Alleviation Through Geographic Targeting: How Much Does Disaggregation Help?" *Journal of Development Economics*, 83(1): 198-213.

Ensminger, J., 2004. "Social network analysis in an African ethnographic setting: implications for economic experiments and the study of corruption," Cal Tech Working Paper.

Francken, N., Minten, B., and Swinnen, J.F.M., 2009. "Media, Monitoring, and Capture of Public Funds: Evidence from Madagascar," *World Development*, 37(1): 242-255.

Galasso, E., and Ravallion, M., 2005. "Decentralized targeting of an antipoverty program," *Journal of Public Economics*, 89: 705-727.

Gugerty, M.K., and Kremer, M., 2008. "Outside funding and the dynamics of participation in community organizations," *American Journal of Political Science*, 52(3): 585-602.

Haan, A., Holland, J., and Kanji, N., 2002. "Social funds: An effective instrument to support local action for poverty reduction?" *Journal of International Development*, 14: 643-652.

Habyarimana, J., Humphries, M., Posner, D., and Weinstein, J., 2007. "Why does ethnic diversity undermine public goods provision?" *American Political Science Review*, 101(4): 709-725.

Khemani, S., 2010. "Political Capture of Decentralization. Vote-Buying through Grants-Financed Local Jurisdictions," World Bank Policy Research Working Paper 5350. Washington, D.C.

Labonne, J. and Chase, R., 2009. "Who is at the Wheel when Communities Drive Development? Evidence from the Philippines," *World Development* 37(1): 219-231.

Mansuri, G., and Rao, V., 2004. "Community-Based and -Driven Development: A Critical Review," *The World Bank Research Observer*, 19(1): 1-39.

Mansuri, G., and Rao, V., forthcoming. Localizing Development: Does Participation Work? Policy Research Report, Development Research Group, World Bank, Washington, D.C.

Miguel, E., and Gugerty, M.K., 2005. "Ethnic diversity, social sanctions, and public goods in Kenya," *Journal of Public Economics*, 89: 2325-2368.

Olken, B.A., 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia," *Journal of Political Economy*, 115: 200-249.

Olken, B.A., 2009. "Do Television and Radio Destroy Social Capital? Evidence from Indonesian Villages," *American Economic Journal: Applied Economics*, 1(4): 1–33.

Paluck, E.L., 2009. "Reducing intergroup prejudice and conflict using the media: A field experiment in Rwanda." *Journal of Personality and Social Psychology*, 96: 574-587.

Paxson, C., and Schady, N., 1999. "Do School Facilities Matter? The Case of the Peruvian Social Fund (FONCODES)," World Bank Policy Research Working Paper 2229. Washington, D.C.

Paxson, C., and Schady, N., 2002. "The Allocation and Impact of Social Funds: Spending on School Infrastructure in Peru," *The World Bank Economic Review*, 16(2): 297-319.

Platteau, J.-P., and Gaspart, F., 2003. "The Risk of Resource Misappropriation in Community-Driven Development," *World Development*, 31(10): 1687-1703.

Platteau, J.-P., 2004. "Monitoring Elite Capture in Community-Driven Development," *Development and Change*, 35(2): 223-246.

Rao, V., and Ibanez, A.M., 2003. "The Social Impact of Social Funds in Jamaica: A 'Participatory Econometric' Analysis of Targeting, Collective Action, and Participation in Community-Driven Development," *Journal of Development Studies*, 41: 788-838.

Ravallion, M., 2000. "Monitoring Targeting Performance When Decentralized Allocations to the Poor Are Unobserved," *World Bank Economic Review*, 14(2): 331-345.

Reinikka, R., and Svensson, J., 2004. "Local Capture: Evidence From a Central Government Transfer Program in Uganda," *The Quarterly Journal of Economics*, 119(2): 678-704.

Reinikka, R., and Svensson, J., 2011. "The power of information in public services: Evidence from education in Uganda," *Journal of Public Economics*, 95(7-8): 956-966.

Rosenzweig, M., and Munshi, K., 2008. "The efficacy of parochial politics: Caste, commitment, and competence in Indian local governments," NBER Working Paper No. 14335.

Schady, N.R., 2000. "The Political Economy of Expenditures by the Peruvian Social Fund (FONCODES), 1991-95," *The American Political Science Review*, 94(2): 289-304.

Shankar, S., Gaiha R., and Jha, R., 2011. "Information, Access, and Targeting: The National Rural Employment Guarantee Scheme in India," *Oxford Development Studies*, 39(1): 69-95.

Stromberg, D., 2004. "Radio's impact on public spending," *Quarterly Journal of Economics*, 119(1): 189-221.

World Bank, 2002. "Social Funds: Assessing Effectiveness," World Bank Operations Evaluation Department, The World Bank, Washington D.C.

TABLES

Table 1: Summary Statistics

Ward-level analysis:				Household/Listing survey analysis:				
Targeting Outcome vari	ables:	Mean	Std. Dev.	Obs		Mean	Std. Dev.	Obs
	TASAF spending per capita	3.072	3.788	2202	Household is Eligible (Vulnerable)	0.213	0.409	35114
	Funded projects per 1000 ward residents	0.097	0.156	2202	Household is Beneficiary, among eligibles	0.131	0.337	12826
	Project applications per 1000 ward residents	3.045	5.412	2202	Group leader, among beneficiaries	0.212	0.409	1681
	Percentage of applications funded	12.995	25.094	2135	Heard of TASAF, among eligible non-beneficiaries	0.489	0.500	9459
Explanatory variables:								
Poverty/Inequality:	Poverty Headcount Ratio	0.342	0.185	2202	Household is poor	0.580	0.494	1509
	Inequality (Theil_L)	0.137	0.041	2202	How many days meat eaten in past week	0.834	1.413	29884
	Population, 000	21.658	19.042	2202	How many days eggs eaten in past week	0.260	1.059	29884
					How many days milk drank in past week	1.830	2.838	29883
Information	Percent Urban	21.990	37.207	2202	Inverse Distance to Village Population Center	0.032	0.077	35114
	Fraction Illiterate	0.364	0.171	2202	Household Head has Primary Education	0.497	0.500	35114
	Fraction with Radio or Phone	0.561	0.178	2202	Household owns a Radio or Phone	0.676	0.468	35114
Political Connectedness	Ward Council CCM vote share	0.684	0.146	2202	Any household member holds village office	0.053	0.224	35114
	Coparty dummy, Ward & Parliament	0.873	0.334	2202	Any HH member related to village elites	0.067	0.250	35114
	Non-CCM Coparty, Ward & Parliament	0.016	0.125	2202	Any HH member belongs to other VG group	0.022	0.146	35114
Political Activity	Ward Voter Turnout (votes/registered)	0.685	0.094	2202	Attended village meeting past 3 months	0.465	0.499	35114
	Ward Voter Registration (reg./population)	0.481	0.111	2202				

	-	TASAF spending per person, US \$		rojects per de in ward	
	(1)	(2)	(3)	(4)	
Poverty Headcount Ratio	1.29***	0.77*	0.04***	0.03*	
	(0.39)	(0.45)	(0.02)	(0.02)	
Population, 000		-0.05***		-0.00***	
		(0.01)		0.00	
Fraction Urban		0.82***		0.02**	
		(0.30)		(0.01)	
Fraction Illiterate		1.55**		0.08**	
		(0.66)		(0.03)	
Fraction with Radio or Phone		-0.5		0.07**	
		(0.63)		(0.03)	
Inequality (Theil_L)		3.27*		0.19	
		(1.97)		(0.13)	
Ward Council CCM vote share		0.26		0.04	
		(0.57)		(0.02)	
Coparty dummy, Ward & Parliament		0.83***		0.02**	
		(0.20)		(0.01)	
Non-CCM Coparty, Ward & Parliament		-1.15***		-0.04***	
		(0.40)		(0.01)	
Ward Voter Turnout (votes/registered)		6.90***		0.22***	
		(1.33)		(0.06)	
Ward Voter Registration (reg./population)		4.83***		0.10***	
		(1.05)		(0.04)	
Constant	2.63***	-4.99***	0.08***	-0.22***	
	(0.15)	(1.75)	(0.01)	(0.08)	
Observations	2202	2202	2202	2202	

Poverty Targeting of TASAF Spending, Ward-Level Analysis.

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Ward-level analysis weighted by ward population.

		bled LS	Between Districts Only		Within Districts Only	
	(1)	(2)	(3)	(4)	(5)	(6)
Poverty Headcount Ratio	-4.60***	-0.47	-10.22***	-3.83	0.63	0.7
	(0.65)	(0.85)	(2.63)	(2.86)	(0.74)	(0.72)
Population, 000		-0.01		0		-0.03*
		(0.02)		0.00		(0.02)
Fraction Urban		1.42**		2.19		-0.39
		(0.68)		(3.05)		(0.60)
Fraction Illiterate		-0.34		4.51		-0.95
		(0.90)		(4.33)		(0.98)
						0.40
Fraction with Radio or Phone		5.75***		10.03** (3.94)		0.68 (1.55)
		(1.14)				
Inequality (Theil_L)		-8.90*** (3.08)		-6.8 (9.90)		0.48 (2.55)
Ward Council CCM vote share		-0.37 (1.03)		0.5 (3.32)		-0.87 (0.96)
						. ,
Coparty dummy, Ward & Parliament		-0.14		-1.93		0.02
		(0.42)		(2.21)		(0.27)
Non-CCM Coparty, Ward & Parliament		-2.11***		-4.20**		-0.24
		(0.53)		(1.76)		(0.34)
Ward Voter Turnout (votes/registered)		5.76***		10.88*		1.45
		(1.45)		(6.32)		(1.31)
Ward Voter Registration (reg./population)	8.45***		11.94**		2.8
		(2.51)		(5.52)		(2.29)
Constant	4.62***	-6.40***	6.54***	-13.36*	12.34***	10.80***
	(0.32)	(2.05)	(1.07)	(7.15)	(1.54)	(2.67)
Observations	2202	2202	119	119	2202	2202
District-Level Fixed Effects:	Ν	Ν	Ν	Ν	Y	Y

TASAF Applications Received per 1000 People in Ward:

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Ward-level analysis weighted by ward population. Between regression run at the district level and weighted by district population.

	O	OLS		Between Districts Only		Districts nly
	(1)	(2)	(3)	(4)	(5)	(6)
Poverty Headcount Ratio	2.64	1.7	17.59***	9.84	-1.9	-5.18
	(3.97)	(3.73)	(5.68)	(10.30)	(4.19)	(4.45)
Population, 000		0.05		0		0.1
		(0.09)		0.00		(0.10)
Percent Urban		-4.25		0.62		-6.63
		(3.70)		(4.97)		(4.64)
Fraction Illiterate		-2.02		11.4		14.50*
		(6.15)		(20.68)		(7.67)
Fraction with Radio or Phone		-0.82		0.72		10.09
		(5.04)		(17.54)		(7.60)
Inequality (Theil_L)		-6.3		8.46		-13.1
		(23.44)		(31.10)		(24.90)
Ward Council CCM vote share		8.87*		19.59*		9.48
		(5.19)		(9.88)		(5.94)
Coparty dummy, Ward & Parliament		2.43		8.63***		-2.34
		(1.59)		(3.21)		(2.15)
Non-CCM Coparty, Ward & Parliament		4.44		25.37**		5.23
		(4.57)		(10.44)		(4.37)
Ward Voter Turnout (votes/registered)		3.85		27.7		-4.6
		(10.08)		(28.66)		(12.65)
Ward Voter Registration (reg./population	on)	7.54		4.81		12.11
		(9.93)		(14.01)		(9.42)
Constant	12.09***	-0.24	1.99	-43.17	7.47	-9.42
	(1.81)	(13.55)	(2.28)	(44.72)	(4.62)	(17.05)
Observations	2135	2135	119	119	2135	2135
District-Level Fixed Effects:	Ν	Ν	Ν	Ν	Y	Y

Percentage of TASAF Applications Funded per Ward:

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Ward-level analysis weighted by ward population. Between regression run at the district level and weighted by district population.

Household-level Targeting of TASAF VG Membership.

Dependent Var: Ever Heard of TASAF.		mated among all eholds	-	ership, estimated the eligible	Group leaders among grou	hip, estimated
	(1)	(2)	(3)	(4)	(5)	(6)
Household is poor	0.054	-0.001	0.031	0.025	-0.118	-0.07
	(0.027)**	(0.03)	(0.02)	(0.02)	(0.029)***	(0.028)**
Inverse Distance to Village Population Center		0.159		0.502		-0.069
		(0.23)		(0.276)*		(0.08)
Household Head has Primary Education		-0.223		0.022		0.203
		(0.035)***		(0.02)		(0.028)***
Household owns a Radio or Phone		-0.041		-0.014		0.094
		(0.03)		(0.02)		(0.023)***
Attended village meeting past 3 months		0.017		0.102		0.03
		(0.04)		(0.019)***		(0.03)
Any household member holds village office		0.012		0.148		0.04
		(0.07)		(0.09)		(0.05)
Any HH member related to village elites		0.014		0.096		-0.055
		(0.06)		(0.047)**		(0.04)
Any HH member belongs to other VG group				0.17		-0.011
				(0.071)**		(0.04)
Observations	1509	1509	1003	1003	716	716

*** p<0.01, ** p<0.05, * p<0.1. Standard Errors in parentheses. Marginal Effects probit with standard errors clustered at the village level, and all analyses weighted by ward-level population.

Awareness of TASAF: (among eligible non-beneficiaries)

Dependent Var: Ever Heard of TASAF.	Poverty	Information	Political Activity	Political Connectedness
	(1)	(2)	(3)	(4)
How many days meat eaten in past week	0.028	0.003	0.005	0.004
	(0.005)***	(0.01)	(0.01)	(0.01)
How many days eggs eaten in past week	0.01	0.005	0.003	0.004
	(0.01)	(0.01)	(0.01)	(0.01)
How many days milk drank in past week	0.017	0.014	0.014	0.013
	(0.003)***	(0.003)***	(0.003)***	(0.003)***
Inverse Distance to Village Population Center		0.017	0.007	0
		(0.05)	(0.05)	(0.05)
Household Head has Primary Education		0.225	0.223	0.216
		(0.018)***	(0.017)***	(0.017)***
Household owns a Radio or Phone		0.144	0.138	0.134
		(0.015)***	(0.015)***	(0.015)***
Attended village meeting past 3 months			0.133	0.127
			(0.015)***	(0.015)***
Any household member holds village office				0.26
				(0.030)***
Any HH member related to village elites				0.102
				(0.024)***
Any HH member belongs to other VG group				0.05
				(0.04)
Observations	9459	9459	9459	9459
Chi-sq on F-Test that sum of additional vars $= 0$	32.69***	45.55***	75.99***	65.48***

*** p<0.01, ** p<0.05, * p<0.1. Standard Errors in parentheses. Marginal Effects probit with standard errors clustered at the village level, and all analyses weighted by ward-level population.

Dependent Var: Household receives TASAF.	Poverty	Information	Political Activity	Political Connectedness
	(1)	(2)	(3)	(4)
How many days meat eaten in past week	-0.032	-0.029	-0.027	-0.027
	(0.008)***	(0.007)***	(0.006)***	(0.006)***
How many days eggs eaten in past week	-0.022	-0.023	-0.024	-0.028
	(0.009)**	(0.009)***	(0.009)***	(0.010)***
How many days milk drank in past week	-0.017	-0.015	-0.015	-0.015
	(0.003)***	(0.003)***	(0.003)***	(0.003)***
Inverse of Distance to Village Population Center		0.254	0.227	0.242
		(0.090)***	(0.088)**	(0.085)***
Household Head has Primary Education		0.01	0.009	-0.001
		(0.02)	(0.02)	(0.02)
Household owns a Radio or Phone		-0.053	-0.056	-0.058
		(0.014)***	(0.014)***	(0.014)***
Attended village meeting past 3 months			0.102	0.094
			(0.016)***	(0.016)***
Any household member holds village office				0.114
				(0.028)***
Any HH member related to village elites				0.015
				(0.02)
Any HH member belongs to other VG group				0.296
				(0.043)***
Observations	5916	5916	5916	5916
Chi-sq on F-Test that sum of additional vars $= 0$	52.93***	4.72**	40.53***	74.33***

Determinants of Being a VG Beneficiary (among eligible households aware of TASAF.)

*** p<0.01, ** p<0.05, * p<0.1. Standard Errors in parentheses. Marginal Effects probit with standard errors clustered at the village level, and all analyses weighted by ward-level population.

FIGURES



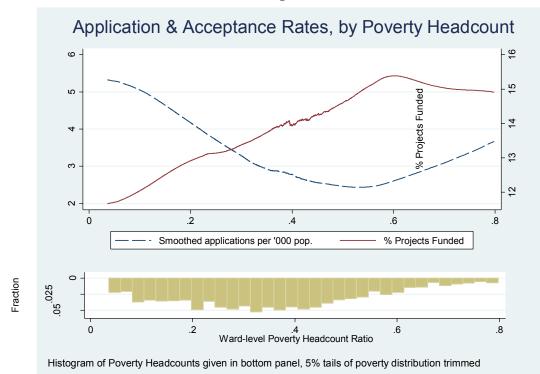
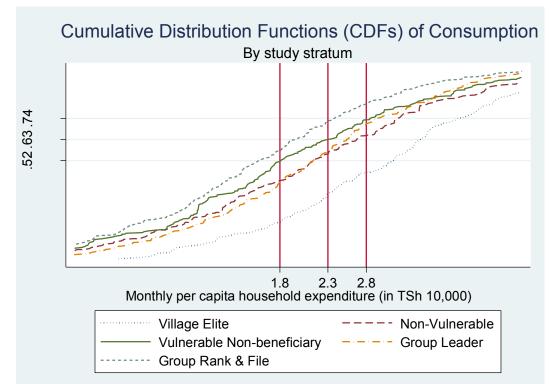


Figure 2



	Applications for projects that DO require cost- sharing (FI & SP)	Applications for projects that do NOT require cost- sharing (VG)
Poverty Headcount Ratio	-0.32	-0.15
	(0.61)	(0.28)
Population, 000	0	-0.01
	(0.01)	(0.01)
Percent Urban	0.76	0.66***
	(0.50)	(0.24)
Fraction Illiterate	-0.05	-0.3
	(0.63)	(0.36)
Fraction with Radio or Phone	3.40***	2.35***
	(0.78)	(0.43)
Inequality (Theil_L)	-5.78***	-3.12***
	(2.18)	(1.07)
Ward Council CCM vote share	-0.21	-0.16
	(0.73)	(0.35)
Coparty dummy, Ward & Parliament	-0.27	0.13
	(0.31)	(0.12)
Non-CCM Coparty, Ward & Parliament	-1.43***	-0.68***
	(0.36)	(0.22)
Ward Voter Turnout (votes/registered)	3.69***	2.07***
	(1.02)	(0.55)
Ward Voter Registration (reg./populatio	ı 6.00***	2.45***
	(1.84)	(0.76)
Observations	2202	2202

APPENDIX. Table A1: Applications for projects that do and do not require cost sharing by applicants:

*** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. Ward-level analysis weighted by ward population.