Targeting in a Community-Driven Development Program: Applications & Acceptance in Tanzania's TASAF.

Sarah Baird
George Washington University

Craig McIntosh[1]
University of California, San Diego

Berk Özler
World Bank

May 2009

Abstract. We bring together poverty maps and administrative records to study the targeting of a major community-driven development program, Tanzania's $150m Social Action Fund (TASAF). We observe the universe of applications to the program, and find the applicant pool to be substantially wealthier and better educated than the national average. Judged relative to the pool of projects from which it began the TASAF selection process is highly progressive, even though relative to the population it is only mildly so. We find that people who are engaged politically benefit to a unique extent from this CDD program, a pattern that is also detected in a 2008 household-level census of 100 villages. Beneficiary households are found to be poorer than the average eligible household, but they are disproportionately engaged in village-level meetings and likely to come from well-connected families.

[1] ctmcintosh@ucsd.edu. Thanks to Michael Futch and Leah Nelson for excellent research assistance. The findings and opinions expressed here are entirely those of the authors and do not necessarily represent those of the World Bank.

1. INTRODUCTION.

Community-driven development (CDD) programs offer a potentially attractive way to drive the selection of development projects down to the local level, allowing communities to determine projects and to select beneficiaries themselves. These programs are taking an increasingly central role globally, with the World Bank alone having lent $7 billion to them by 2004 (Mansuri & Rao, 2004). Typically, local officials are given a menu of projects from which to choose, and then applications from villages are vetted by district officials and approved projects are disbursed funds managed locally (Haan et al, 2002). Despite the egalitarian ethos of such programs and a great deal of effort put into making the targeting of these projects pro-poor, the empirical literature on targeting shows that CDD projects tend to be only moderately progressive, if at all (World Bank, 2002).

Why should this be? One feature of CDD programs that has been overlooked in most of the targeting literature is the unusual fact that communities have to actually *apply* for projects in order to be considered for funding. On inspection, such an application-driven process seems likely to be regressive. A community that has submitted an application to a CDD project has overcome a collective action problem, demonstrated literacy and a willingness to interact with government bureaucracy, and has incurred short-term application costs in order to gain a long term funding benefit. In other words, this community may be better organized, more educated, and more patient. We use data from Tanzania's Social Action Fund (TASAF) to test this hypothesis.

The relatively well-developed empirical literature on CDD targeting uniformally compares the beneficiary population to the entire population[2], and this is of course the correct test for overall targeting. However, to our knowledge no study has been able to observe the demand- and supply-driven effects of a CDD project sequentially; that is first to observe the universe of applications to the program and then the universe of projects approved for funding. The TASAF institutional data allow us to establish both steps in the selection process, and we show that the applications received for TASAF are indeed strongly regressive: richer and more literate communities are far more likely to submit numerous applications. The majority of the variation in applications is however across districts, and therefore the formula used by TASAF to allocate district-level budgets (which is itself intended to be progressive) unwinds the majority

[2] See, for example, Alderman (2002), Galasso & Ravallion (2005), or Araujo et al (2008).

of this regressivity. Within-district targeting at the ward level is then relatively neutral, leading to a beneficiary population that is only very slightly poorer than the national average.

We also consider the political economy dimensions of targeting. The possibility that the selection of beneficiaries may be driven by national politics is tested by mapping voting data from the December 2005 elections at the presidential, parliamentary, and ward-council level on to the application & funding data. We define variables that let us test several dimensions across which funding and political behavior may be linked. We measure ward-level support for the government through the vote share for Tanzania's dominant Chama Cha Mapinduzi (CCM). Competitiveness is measured using the vote share difference between the winner and runner-up. We define dummy variables for co-party affiliation at the ward and parliamentary level, and look for differences between coparty CCM and opposition linkages. Finally, we measure political activity via ward-level turnout and voter registration rates. We find the selection process to be relatively invariant to overall party affiliation, but there is some evidence that co-party affiliation increases spending when both ward and parliamentary politicians are aligned with the CCM. The dominant relationship from the electoral data, however, is that wards with high voter turnout and registration are more likely to navigate the funding process successfully.

Two primary explanations present themselves for this correlation between turnout and TASAF spending. One would take the time pattern as causal, and infer from a Dixit & Londregan-style redistributive game that politicians were rewarding most those areas where voting probabilities were highest. We prefer a more cautious interpretation in which turnout is itself a proxy for a the level of political engagement in the community, and it is this underlying attribute that drives both voting and successful navigation of the CDD process. Under this 'squeaky wheel' effect high-turnout communities demonstrate an ability to overcome collective action problems closely related to the application decision. Such communities submit more applications to TASAF, and because the funding formulae were not built to work against this attribute these politically active wards end up receiving more money per person than equivalent politically inactive places.

We then use a census of households in 100 villages across 5 districts of Tanzania to study within-village targeting of a specific component of TASAF, namely the 'Vulnerable Groups' program. VG programs are supposed to be available only to households with a 'vulnerable' member, defined as a widow, orphan, handicapped, HIV-affected, or elderly person. Within this eligibility criterion, which is likely progressive in and of itself, villages are supposed to poverty target eligibility for membership in an entrepreneurial investment group, which will then compose a business plan and be funded for a collective

venture. Projects are typically animal husbandry, but also grain milling machines, irrigation projects, or tailoring. We use data from the baseline of a randomized impact evaluation, surveying every household in a village with a short listing questionnaire establishing the eligibility status of the household, and collecting basic asset ownership index. We then give a longer household survey to a sub-sample, over-surveying households that have 'vulnerable' members by TASAF's definition so as to be able to establish baseline poverty among TASAF beneficiaries, TASAF group leaders, eligible non-beneficiaries, average ineligibles, and village elites.

Again, at the village level, a multi-tier selection problem exists. In this case a household first has to be eligible for the program (or more exactly, the community must be willing to consider them as eligible, which may not be the same thing). Indeed, the core logic of defining 'vulnerability' in this fairly rigid manner is the idea that it will prove an easily observable and effective targeting criterion. Then, there is a further layer of targeting within the eligibility criterion which will be driven by some complex relationship between demand-side factors (household-level benefits from group participation, costs of applying & participating) and supply-side factors (targeting by village-level officials, and desire of local officials to 'capture' the groups). With the household-level census we can compare the entire vulnerable population to the entire village population to measure the efficacy of this definition of vulnerability at poverty targeting, and then compare the actual beneficiaries to the entire vulnerable population. This effectively decomposes the targeting of TASAF into a cross-vulnerability component and a within-vulnerability component. Vulnerability by itself proves to be quite successful in generating a progressive distribution of program beneficiaries, and the within-vulnerability targeting proves to differ substantially according to a beneficiary's rank in the group.

When we consider the intention that the resulting groups undertake an entrepreneurial activity, it is not clear what the optimal targeting rule would be. If there are any threshold effects in education or ability to work below which members cannot contribute to a successful project, then we should not see such individuals selected. Further, it is not hard to imagine that a group composed entirely of very poor and vulnerable individuals might lack entrepreneurial skills, contacts, or ideas, and therefore it may be critically important that groups contain some level of internal inequality. We find the programs are targeted in a way consistent with both of these effects; beneficiaries are somewhat poorer but substantially better educated than eligible non-beneficiaries. The group elites, defined as the secretary and treasurer, are richer than the entire eligible group on average and better educated than the average person in the village. Therefore the program appears to have succeeded in indentifying relatively poor but capable individuals for the program.

In summary, our study concurs with the larger CDD literature in finding TASAF to be slightly progressive in its overall targeting. We are able to attribute much of this lack of observed progressivity to the fact that the application process produces up a highly regressive pool of projects, so the approval process begins work from a sample richer and better educated than the national average. Seen from this perspective, the approval process is very successful in tipping towards progressivity in all respects except the degree of village-level political activity (turnout). At the household level, we find that the physical vulnerability attributes used by TASAF are quite effective, and that the heterogeneity of membership inside this vulnerability criterion suggests that village leaders have incorporated the need to be able to run an entrepreneurial activity into their targeting decisions. The implication of these results is that CDD programs need to redouble their efforts at sensitization during the application process, and that political passivity is a critical attribute to focus on sensitizing. The extent to which the relatively educated and heterogeneous groups usually selected to receive VG funding are in fact the most effective will be measured through an ongoing randomized impact evaluation.

2. BACKGROUND OF THE INTERVENTION.

TASAF, Tanzania's Social Action Fund, is a community-driven development project being implemented throughout Tanzania. Under its second phase (TASAF II) worth $150 million, up to one third of all Tanzanian villages are expected to receive a TASAF sub-project by 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.

Over the past decade Social Fund programs like TASAF have become a major channel through which donors channel resources to developing countries. Much of the debate over the efficacy of such programs has centered around the possibility of 'elite capture', under which powerful local actors may wrest control of funds from the intended beneficiaries (Platteau & Gaspart 2003, Ensminger 2004). The literature typically depicts tension between the informational advantages held by local actors, thereby motivating decentralization (Alderman 2000), and the 'Madisonian' presumption that lower levels of government are more easily capturable by elites (Bardhan & Mookherjee, 2000). Empirical evidence tends to support the importance of capture, in terms of diversion of funds to elites (Platteau 2004), the selection of project types (Araujo et al., 2008) and the central role played by the ability to supervise local political leaders (Munshi & Rosenzweig, 2008).

In this paper we focus on the extent to which a CDD program successfully targets poor and vulnerable beneficiaries. Galasso & Ravallion (2005) provide an empirical structure for testing the additional contribution of local information by defining the information set held by the central planners, and then using 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 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 OLS variation in targeting efficiency into a cross-district (centralized) and a within-district (decentralized) component.[3] 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 district governments push funding down to the local level.

In terms of the effects we expect to see, we are guided by several literatures. The core question of the paper is poverty targeting, and so for each specification we present the univariate correlation between the poverty headcount ratio (P0) and the variable of interest. We then present an additional battery of controls. First, we include the ward-level dependency ratio to present an alternative metric of local need. A large literature ties public expenditures to the extent to which voters are informed, a variable which is typically proxied for by access to media (Stromberg 2004, Olken 2008, Paluck 2009) We attempt to capture this heterogeneity by including ward-level illiteracy and the ownership rate of radios or phones. Galasso & Ravallion (2005) motivate a direct role for inequality in CDD targeting. They show that, for a given poverty level, optimal transfers will increase with inequality due to diminishing marginal utility. However, the set of pareto weights used to determine local political outcomes may disfavor the poor when inequality increases, and hence actual allocations will decrease with inequality. While it has typically been observed that public goods provision increases in Africa with ethnic homogeneity (Miguel & Gugerty (2005), Habyarimana et al. (2007)), Tanzania has a uniquely non-ethnic polity and hence we do not expect these issues to be particularly salient in this context.

[3] The allocation was done based on three criteria – population which account for 40%, Geographical size which account for 20% and poverty counts that account for 40%. Since using these criteria alone could cause vast differences between councils' allocations, 25% of NVF was first deducted and distributed equally to all councils. The remaining amount was then distributed using a calculated Composite Index that combined Population, Geographic and Poverty Indices.

A large literature in political science examines the redistributive electoral game in which incumbent politicians target transfers to maximize their probability of re-election. Under this scenario it would be voting patterns rather than metrics of economic need that would be the primary drivers of transfers (although models such as Cox & McCubbins (1986) and Dixit & Londregan (1996) do posit diminishing marginal utility for voters, and hence motivate the idea that purely electoral transfers would nonetheless be progressive). Given the formulaic distribution of money to district governments, we expect to find the most interesting politically-driven effects in the linkage between district and local governments, and so we focus our analysis on local-level politics. We define variables to test a variety of politically-driven targeting hypotheses:

- Under a simple *pork-barrel spending* scenario, the incidence of spending will be related to the overall vote share, in a manner dependent on whether the core or the swing is being targeted.
- If only wards that are politically *competitive* were being targeted for funding, then the incidence of funding will be correlated with the margin of victory between the winner and the runner-up in ward-level elections.
- If strategic linkages are required between local and national-level politicians in order to bring home funding under this complex screening process, then *co-party affiliation* will increase spending per capita. If, in addition, the center has captured this process, then the influence of co-party affiliation will be stronger if the politicians share CCM affiliation.
- A critical variable mediating the political incentive to invest in a ward is the fraction of the beneficiary population that votes. We get at this quantity in two stages, by controlling both for ward-level *turnout* and *voter registration*.

Details of the Application & Screening Process.

TASAF applications go through an elaborate screening process whose purpose is precisely to guard against the types of elite capture so well documented in other CDD programs. It is important to note, given the regressivity we find in applications, that TASAF had a massive sensitization campaign in which every one of Tanzania's 11,000 villages was visited by an official and given information about the program and how to apply. The steps in the process are as follows:

1. Sensitization: Outreach & training in every village.
2. Application: 'Sub-Project Interest Form' (SPIF), driven by villages.
3. Sector Expert Review: District-level sector experts review applications for merit.
4. Extended Participatory Rural Appraisal (EPRA):
    - Business plan & budget review.
    - Environmental review.

- 'Pairwise Ranking Exercise' in which 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 pairwise combinations of these potential projects to guarantee that the project applied for is indeed the one desired by the village.

5. 'Sub-Project Application Form' (SPAF) then filled and goes for approval at the District office and by the Village Assembly's Finance Committee.
6. Completed SPAFs are then sent for review by the TASAF Management Unit in Dar es Salaam, and are finally endorsed for funding.

This process is 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 Dar 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 has yet to reject a single application which has been properly submitted by district officials, reinforcing the idea that once the funding formula has been set and money disbursed, this process is driven entirely by district- and village-level decisionmaking.

3. DATA.

Institutional Data from TASAF.

We work with two main databases from TASAF. The first of these documents every application (SPIF) received between May of 2004 and October of 2007, for a total of 102,606 applications. More than 95% of the 2407 wards in mainland Tanzania submitted at least one application, with the median ward submitting 14 and the 95th percentile submitting 148 (the median ward population is 11,000 people).[4] The second institutional database describes every TASAF funded project up through August 2008, and gives details of the beneficiaries, project type, and budgets for each of 4,037 projects. The database gives the funding balance between the National Village Fund (NVF, TASAF's main spending vehicle), local government authorities, and the amount contributed by 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 and can therefore calculate the number of applications, the percentage of applications funded, and the total amount spent from each different source per ward.

Poverty Maps.

The institutional data is overlaid upon poverty maps calculated using the World Bank's *PovMap* software. This exercise uses the household surveys from Tanzania's 2000/01 Household and

[4] The heirarchy of Tanzanian regional units is Region, District, Division, Ward, Village.

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 including 22,178 households that were sampled between May 2000 and June 2001, using the national master sample. The HBS is a much richer survey, containing information on a wide range of demographics, education, health status, and ownership of durable assets. This allows the construction of a well-estimated consumption aggregate, but the coverage of the survey is not national. The variables included in the short form of the 2002 Census can however be used to explain the consumption aggregate formed from the HBS, and thereby a statistical prediction of household-level poverty rates can be formed for every household in the country. These imputed consumption figures (along with data on education, literacy, dependency ratios, and asset ownership) are then averaged for the urban and rural component of every ward in Tanzania. Given the population weights on the rural and urban shares, we can then calculate correct estimated ward-level averages for every ward in the country from these poverty maps. The poverty mapping data is missing for the islands of Zanzibar and Pemba, and so we restrict the entire analysis to the Tanzanian mainland.

Two features of our use of the poverty maps deserve special discussion. The first of these is the very small spatial unit to which we push the maps. Poverty maps are not typically used by policy makers below the district (or at least the division) level because the error inherent in the prediction of poverty in any specific unit becomes unacceptably large as one makes the unit too small. We push these maps all the way down to the ward level because we are not using the maps to target or discriminate against any specific ward, but rather to estimate targeting relationships using the entire national population. In this sense our unit-specific errors should wash out over the whole sample, leaving us only with some possible attenuation bias which should be pushing all of our marginal effects to zero and therefore decreasing our ability to reject the null. We consider this a reasonable price to pay for the ability to analyze targeting efficiency at such a disaggregated level.

The second issue encountered is in calculating inequality at the ward level. Standard inequality measures such as the Gini coefficient are not decomposable, and hence there is no straightforward way to take an analysis of ward-level rural inequality and ward-level urban inequality and calculate from these an overall ward-level inequality, or to calculate district values from ward values. To overcome this issue we use the Thiel Generalized Entropy measures of inequality, which are decomposable in a straightforward way and allow us to calculate inequality at the ward and district level.

Electoral Data.

The final data used in the national analysis is the outcome of the 2005 presidential, parliamentary, and ward councillor elections. All data are available online at the website of the National Electoral Commission of Tanzania.[5] The presidential and parliamentary results are at the constituency level, the councillor elections are at the ward level, and the electoral data is merged with the TASAF institutional data and the poverty maps by ward. The elections took place prior to the announcement of the awards of TASAF projects, and hence we take political outcomes as predetermined, and seek to understand how voting patterns relate to expenditure patterns. Given this cross-sectional relationship we cannot hope to understand whether regions were allocated TASAF funds *because of* their level of electoral support.[6] Rather, it gives a descriptive analysis of the ways in which applications, funding rates, and expenditures correlate with broad patterns of support and turnout at the electoral level.

We define five dependent variables based on these ward-level electoral outcomes. Given the huge majority by which 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 councillor elections the ruling party is less dominant. We therefore use the vote share for the CCM at the ward councillor level to measure *intensity* of local-level support for the ruling party, and we use the difference between the vote shares of the winner and the runner-up in the election to measure the *competitiveness* of a ward. In order to model more exactly the patronage relationships which might be expected to underlie a program wherein the disbursement of funds from the central government to districts is highly formulaic but substantial discretion exists over transfers from districts to the village, we include a *coparty* dummy indicating that the ward councillor and the parliamentarian are from the same party. In order to differentiate coparty effects within the CCM versus coparty opposition affiliation, we define a second dummy for *non-CCM coparty* affiliation (coparty dummy always equals 1 when the non-CCM coparty equals 1, so this dummy tests for a differential effect of non-CCM coparties versus CCM coparties). Finally, we include *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. by dividing the number of valid votes cast in the 2005 elections by the ward-level population. Both of

[5] Data available from http://www.nec.go.tz/

[6] Data from the upcoming December 2010 election will provide some evidence over the extent to which the CCM or incumbent politicans have derived an attribution (claim-taking) advantage from the use of TASAF funds in their districts. This relationship between the fiscal and the electoral will also not be unconfounded, however, if a natural coincidence exists between the places where support is increasing for the party and the places where it was anyway optimal make fiscal transfers.

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. 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 when we look at the effects of voter registration rates.

There are 2,542 wards in 119 districts in mainland Tanzania. The poverty mapping data is unavailable for 86 of these wards, and so the analysis of funding on poverty headcounts is conducted using 2,456 observations. Out of these, the ward councillor elections were uncontested in 259 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 2,197 wards for which both poverty and electoral data are available.[7]

Survey Data.

The survey data come from a listing exercise and household survey we conducted in five districts of Tanzania between June and December of 2008. The sample consists of 61,611 households in 20 villages of each of 5 districts: Moshi, Lushoto, Kwimba, Makete and Nzega (see Figure 9 for a map of survey locations). Each household was sorted into one of the following strata: village elite (village VEO and chairman), non-eligible households, eligible non-beneficiaries, TASAF group leaders, TASAF rank and file members and "prime movers" (households containing an individual who initiated the TASAF group process, usually falling into one of the above categories). The sampling design followed stratified random sampling by district, village and stratum.

Within each village, 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. The long listing survey was given to all village elites, all households with vulnerable members (including TASAF households and eligible non-beneficiaries) and prime movers (35,871 households in total). The long listing survey included collected more detailed household-level data, including amenities, characteristics of the household head, holdings of assets, and basic consumption data. The household survey was given to all village elites, TASAF group leaders from up to three TASAF groups and prime movers. We also sampled for the household survey three households from the TASAF rank and file

[7] 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.

stratum for each TASAF group, three households from the eligible non-beneficiary stratum, and three households from the non-eligible households. The household survey contained detailed consumption data at the household level, limited consumption data at the individual level, information about each household member (e.g. age, education, occupation, health), information about child health and nutrition, household production (agriculture, livestock and enterprises), transfers to and from the household, details of credit use, shocks experienced by the household, time preference and risk aversion questions, self-help group membership, information sources and HIV/AIDS information. There were 1,544 households that completed the household survey.

4. NATIONAL-LEVEL TARGETING RESULTS.

Determinants of Applications.

We begin our empirical analysis with an examination of the factors that determine the number of applications submitted by a ward. Fewer than 5% of wards submit no applications, and the distribution is highly skewed with a few wards submitting over a thousand applications apiece. Once we divide by ward-level population the distribution is more centered, with a median of 1.3 and a mean of 3.3 per thousand people. The first column of Table 1 gives the OLS relationship between the ward-level poverty headcount ratio (P0) and per capita applications. The strong negative coefficient indicates that for every 10% increase in ward-level poverty, the number of applications decreases by .4 for every thousand people, or a decrease of over 10% relative to the mean number of applications. Therefore, applications are strongly regressive on average.

In section 2 we motivated an additional set of covariates which are theorized to have independent effects on the application or selection process. With this expanded set of explanatory variables, the second column shows that the poverty rate becomes insignificant, and the economic regressivity from the first column is better explained by two other variables: urbanity and the widespread ownership of radios and phones. Illiteracy also appears to have a weak effect on driving down applications. Hence the low-application regions are not so much *poor* as they are *poorly educated* and *poorly informed.* Controlling for these various measures of poverty, inequality exerts a negative effect on the number of applications, indicating that the collective action problems may be more easily overcome in economically homogeneous communities. The result on inequality is consistent with theoretical predictions that, holding poverty constant, increasing inequality will disempower the poor and make collective action more difficult. Among the political variables, the most significant effects are the depressive impact of having both the ward councillor & the MP be from the same, non-CCM party, and a very large impact of political activity (turnout & registration) on application activity. The most significant result on the additional

covariates, however, is on the turnout variable. The marginal effects here indicate that a 10% increase in voter turnout correlates with just under one additional application per thousand.[8]

Having observed the regressivity of the overall application process, we now wish to decompose the ward-level variation into a cross-district component (which will naturally be neutralized by the spending formula) and a within-district component (which will not). The between-district heterogeneity is estimated using population-weighted district-level averages of all variables for the 119 mainland districts, and the within-district estimation uses the ward-level data with district fixed effects. The latter regressions are informed only by deviations from district-level means, and are therefore purged of all differences between districts. As this decomposition makes clear, the economic regressivity of applications is almost entirely confined to the between-district dimension; the within-district variation in poverty, phone access, and voting are uncorrelated with the number of applications.

To confirm the overall regressivity of applications visually, Figure 1 gives the district-level consumption averages (based on the poverty mapping consumption aggregate from which our poverty and inequality measures are calculated). The North-East and North-coastal areas of the country have the highest consumption per capita, and the central region up to the southern shores of Lake Victoria are the most impoverished. In Figure 2 we present a three-dimensional graphic with applications per capita as the third dimension, and we smooth ward-level data across space (a dot visible at the location of a ward center indicates that it has below the average number of applications per capita). This picture presents essentially the inverse surface from Figure 1, with high concentrations of applications in the richest parts of the country. The high-application wards are all found in specific regions, however, reinforcing the idea that this variation is itself between-district.

Percent of Applications Funded.

Table 2 uses the same structure as Table 1, but changes the dependent variable to the Percent of Project Funded (100*number of funded projects/number of applications). The acceptance rate is strongly progressive, and swings against the richer and better informed wards that were most likely to apply. The single most strongly-favored attribute is illiteracy, suggesting that the selection process has internalized the strong disadvantage faced by poorly educated applicants in a CDD process. Some degree of progressivity with respect to literacy is found at both the between-district (funding formula) and within-district level. Interestingly the disadvantage from applications faced by non-CCM coparty wards is itself

[8] These regressions have also been run using a single measure of voter activity calculated as (valid votes)/(ward population). Results are very similar, despite the fact that voter turnout and voter registration are in fact weakly *negatively* correlated with each other.

being overcome in the selection process, suggesting that (holding other things equal) funding is swinging *towards* wards which are most solidly external to the CCM power structure. Voting turnout has no effect on the acceptance rate at any level.

Funding per capita.

We can combine the application and acceptance information and conduct the analysis typically given in studies of CDD targeting: the incidence of spending across the poverty distribution. Table 3 shows that the acceptance process was sufficiently pro-poor as to unwind the strongly skewed application process, and to yield a final spending incidence which is slightly progressive. Unequal districts also seem to have done well in terms of final funding, despite their disadvantage in initial applications. The strongest single covariate in terms of funding per head is the ward-level population itself, indicating that less is spent per person the larger is the number of people in a ward. The political variables demonstrate relatively strong and interesting effects in terms of spending incidence; the dominant relationship is again the turnout/registration variables, which show politically active places receiving substantially more funding from both cross-district and within-district decisionmaking processes. While there is some evidence that CCM coparty affiliation is beneficial (and non-CCM coparty affiliation harmful) this effect is entirely cross-district and hence most likely an incidental result of the funding formula. More intriguing is that the within-district variation displays some evidence that competitive wards with CCM victories are more likely to be funded, relative to their own district mean. Figure 3 confirms that the smoothed contour of projects per capita is flatter and more tilted towards poorer areas of the country than is the contour of applications per capita.

A representation of the ways in which district-driven heterogeneity in applications is counteracted by the district funding formula is given by Figure 4. Here we plot the smoothed number of applications and the smoothed acceptance rate over the distribution of illiteracy. The heterogeneity is tremendous; the most literate wards submit almost 7 applications per capita, while the least literate submit fewer than 2. The acceptance rate across that same span, however, goes from an average of 45% to 95%, leading to a final funding probability that is relatively invariant to literacy levels. A final graphical representation of the regressivity of applications and the eventually weak progressivity of funding is in Figure 5, which plots the CDFs of average ward-level consumption for the whole population, for wards that submitted more than the average number of applications per capita, and for wards that got more than the average funding per capita.

Allocations versus Spending.

As a part of an effort towards transparency, TASAF has posted on its website the amounts allocated to each district. We can total the recorded expenditures from the TVF in the administrative data and compare them to the intended allocations. Figure 6 plots the amount allocated versus the amount spent as of August 2008; the average district has spent just over 80% of its funds, and 14 out of 119 districts have already spent amounts in excess of their original allocation. In order to keep units comparable for the data analysis, we then calculate the simple difference (total NVF spending – allocated spending), and divide the resulting amount by the district population. The majority of variation in this difference comes from districts that have not yet spent out their full allocation, so to the extent that this spending lag is temporary, any differences arising from this phenomenon will disappear with time.

The first two columns of Table 4 examine this dependent variable, which is the per-person US$ difference between what the district was given and what it has spent. The sole strong result is again on the voter turnout, and the coefficient indicates that almost 60% of the marginal effect of voter turnout on total spending per capita seen in Table 3 can be explained by the variation in *spending*, rather then variation in *allocations.* This raises the possibility that the only reason that this measure of political activity is important is that it induces communities to spend the money quickly, and hence the spending differences will disappear with time. As a way of getting at this effect we split the sample around the mean remaining balance in the account ($158,000, out of an original allocation of just under $1m) and re-run the regressions. The results show that the marginal effect of turnout is found entirely in those closest to or above full expenditure, and not in those who have yet to spend most of their money. We take this as evidence that these turnout effects will persist over time.

Which Types of Districts are Good at Targeting?

We conducted regression analysis (not reported) on the determinants of targeting efficiency at the district level. Targeting efficiency is defined as the share of total TASAF spending that goes to the bottom 40% of the within-district income distribution, and this can be explained with district-level attributes. Few significant determinants were found, with the exception of the overall wealth of the district. Figure 7 plots the within-district targeting efficiency against average district-level consumption and shows a clear downward slope, indicating that rich districts do a worse job of targeting their own (relatively) poor. One candidate explanation for this relationship is that rich districts have more applications on average, and so there is simply a 'crowding out' of the poorest projects by the large volume of overall applications. In Figure 8 we plot targeting efficiency on the number of applications and find no relationship, however. We also ran regressions explaining the acceptance probability with the

interaction between the wealth of a ward and the number of applications submitted by other wards in the same district, and found no evidence that poorer wards get disproportionately crowded out by a large number of applications in their district. Therefore the primary determinant of good poverty targeting at the district level appears to be overall district poverty, and there is no crowding-out effect in the number of applications.

Are 'Decentralized' Districts better at targeting than 'Centralized' districts?

An interesting window on the relative benefits of centralized and decentralized targeting is provided by the fact that districts must be 'qualified' to handle disbursement directly through the Local Governments Capital Development Grant System. Under this system, in order to handle funds directly districts must meet minimum standards on criteria such as financial management, local revenue generation, budgeting, and transparency. Districts that fail to qualify face limited access to funds outside of the TASAF mechanism, and do not directly manage TASAF accounts themselves. While the selection process is essentially the same, the disbursement process is centralized in these 'disqualified' districts, and hence the incentives for corruption and capture are very different. To the extent that these factors drive the funding process in TASAF, we may expect to see divergent targeting patterns. Given our cross-sectional data structure, however, we are not able to separately identify a selection mechanism (what kinds of districts get disqualified) from a treatment effect (what are the changes induced by centralized budget management), and so our point estimates reflect the joint action of these two forces.

We estimate the regressions in Table 5 at the district level, because the 'disqualification' for decentralization enters at the district level. Using the most significant variables from Tables 1-3 as controls, we find no evidence that targeting is any different in 'disqualified' (centralized) districts, either in the rates of approval or in the marginal effects of core district-level attributes on the probability of approval. There is therefore no sign that the very different incentives generated by centralized budgeting have altered the selection process in any way.

What determines the type of projects that beneficiaries receive?

As discussed in Section 3, there are three types of projects funded through TASAF. They are Infrastructure (typically school expansion, but also road and health facility improvements), Food-for-Work (usually road repair) and Vulnerable Groups (entrepreneurial investments, typically livestock). Where communities face a menu of options from which they can choose projects, this choice presents a strategic problem for local communities. Araujo et al (2008) present a model demonstrating that elites will try to steer the selection process towards goods from which they benefit, and therefore poorer villages are *more* likely to provide excludable benefits to the poor, and controlling for poverty unequal

communities are *less* likely to do so. In the context of TASAF, Food-for-Work appears to be the project that most credibly targets resources solely at the poor. Infrastructure projects would appear to provide the most benefit to the well-off, and the incidence of Vulnerable Groups projects depends on whether or not they are captured. Under the model of Araujo et al, then, the wealthiest and most unequal wards should prefer Infrastructure projects, and the poorest and most equal should prefer Food-for-Work.

The results presented in Table 6 seem to be at odds with this theory of decisionmaking. It is the poor and equal districts in which the highest share of applications and projects are directed toward infrastructure improvements. In other words, those circumstances in which we would expect the preferences of the poor to be most heavily weighted in village-level decisionmaking produce the type of project with the fewest excludable poverty-targeted benefits. Food-for-Work projects, which we might expect to arise in just such an environment, are found to be largely orthogonal to poverty and inequality. Vulnerable Groups projects, on the other hand, are much more likely to be applied for and approved in wealthy and unequal places, which should describe an environment in which the poor have little political power. There seem to be two, contradictory explanations for this predilection towards VG projects in precisely the environment in which the poor ought to be most disempowered. The first of these is nefarious, in that VG projects may be so subject to capture that elites actually prefer them because they represent the most direct avenue towards appropriation of resources (that is to say, local elites find these individuals 'vulnerable' as well). In distinction, we might also posit that the definition of 'vulnerability' is so stringent and rigorously applied that only where we have both poverty and inequality do we find individuals poor enough to qualify for the program. In order to attempt to understand the efficacy of 'vulnerability' as a targeting criterion in and of itself, we now proceed to a household-level analysis of within-village targeting.

5. WITHIN-VILLAGE TARGETING RESULTS.

Our analysis of within-village targeting focuses on the Vulnerable Groups program because the randomized impact study for which these data form a baseline is evaluating that component only. The entire sampling procedure was based around the definition of 'vulnerability' that defines eligibility for participation in a VG group, with vulnerable households being oversampled in the household survey (please see Figure 9 for the locations of the districts in which the household surveys were conducted). Given the intense focus on the question of elite capture in CDD programs, we define two specific types of elite household: first, the household of the Village Executive Officer and the Village Chairman. These individuals are the 'Village Elites'. Then, there are the within-group elites, defined as the Secretary, Treasurer, and Chairperson of the group. These three individuals have access to the group bank account and therefore are in a clearly defined position of power; these are the 'Group Leaders'. The remaining

three strata are then defined by exclusion: the 'Group Rank & File' are the group members who are not leaders, the 'Eligible Non-Beneficiaries' are vulnerable households not included in any TASAF VG group, and the 'Non-Vulnerable' is everyone not in any of the above four strata.

Table 7 gives summary statistics of a basic set of baseline covariates by stratum. Village Elites are better off, younger, more educated, and more likely to be male than any other group. The 'vulnerability' criterion appears to be generally effective as the average eligible non-beneficiary household is older, less well-educated, and somewhat poorer than the average non-vulnerable household. The VG program appears well poverty-targeted in the sense that all TASAF beneficiary households are more female, less likely to eat meat, and poorer than non-vulnerable households. Interestingly, however, the group leaders are significantly better educated than, and the group rank & file significantly worse-educated than, the average ineligible household.

We now move to calculating the Foster-Greer-Thorbecke P_α indicators for each stratum. The FGT index can be defined in general form as $P_\alpha = \frac{1}{n}\sum_{i=1}^{q}\left(\frac{z - y_i}{z}\right)^\alpha$ where n is the number of households, z is the poverty line, y_i is household consumption, and q is the number of households under the poverty line. Setting $\alpha = 0$ gives the poverty headcount ratio (P0), setting $\alpha = 1$ gives the intensity of poverty (P1), and setting $\alpha = 2$ gives the severity of poverty (P2). Table 8 shows that fewer than 20% of village elites are in poverty, whereas almost 60% of group rank and file are. The vulnerability criterion is, in and of itself, a relatively effective targeting criterion because the poverty rate among non-vulnerable versus vulnerable households rises from 41% to 51%. 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). The very high numbers for P1 and particularly P2 for the group rank and file indicate that there are large numbers of extremely poor households in this stratum.

Figure 10 shows the CDFs of poverty by vulnerability status, and Figure 11 by stratum, with three different poverty lines superimposed. These pictures confirm the impression from the previous tables; vulnerability works relatively well on its own but the targeting of the program to rank and file is substantially better than would have been achieved by the use of vulnerability alone. One interesting feature of Figure 11 is the CDF for group leaders has a steeper slope than the others; it crosses the CDFs

of both eligible non-beneficiaries and non-vulnerables, indicating that there is less inequality within group leaders than the other strata.

Table 9 takes the whole sample of eligibles, and uses a Probit model (with standard errors clustered at the village level) to ask which types of vulnerable households become TASAF group members, and which types become group leaders.[9] We control for a welfare indicator (expenditures in the first two columns, and the headcount index in the last two) and these coefficients tell us what could be seen from the previous analysis: the group rank and file are poorer than the average eligible non-beneficiary, and the group leaders richer. In terms of education, group leaders are significantly more educated than eligible non-beneficiaries. Perhaps the most striking results, however, are on the measures that indicate the degree of political activism and connectedness. Group members are significantly more likely to attend village meetings (other than TASAF meetings), to hold political office in the village, and to be related to the village elites than are people that technically would have qualified for TASAF VG projects but did not receive them. Hence while these programs are well poverty-targeted at the village level, they are also flowing towards households that are both active politically and are well connected. We therefore see a micro-level confirmation of the same patterns that emerged from the cross-ward variation. Wards that are politically active and which have party ties to district officials receive more money, and households engaged in local politics and tied to local officials are more likely to benefit as well. Hence the program is going to poor but politically active units all the way down the chain.

6. CONCLUSION.

We bring together multiple data sources to track the targeting of a major Community Driven Development program, Tanzania's TASAF. We start from poverty maps and the universe of applications to the program, and find that the endogenous process of application to this CDD program generates an initial pool of projects that is strongly regressive. Richer, more literate, and more politically active communities are likely to apply, but much of this regressivity is undone by the formula through which TASAF allocates budgets to districts. The project selection mechanism at the district level was explicitly designed to focus spending on the poor, but not on the politically inactive, and so the final distribution of funding is skewed heavily towards communities with high voter turnout. The selection process is strongly progressive relative to the application pool, but given the relatively well-off sample from which it begins, delivers an incidence of overall spending which is only mildly progressive relative to the population. Our results suggest that this pattern (also found in many other studies of CDD targeting) may

[9] This analysis uses all eligible households that were given full household surveys, and the group leaders are eliminated in the regressions predicting group rank and file membership relative to the entire eligible population.

be attributable to the application requirement, and this motivates redoubled efforts to sensitize communities broadly and intensively prior to beginning a CDD project.

Using within-village data from a household census we find similar results. The 'vulnerability' criterion which defines eligibility for TASAF's entrepreneurship development grants is itself a relatively effective poverty targeting tool. Communities are then successful at picking households within this eligibility requirement that are substantially poorer than the average vulnerable household. Group leaders are better off than the average eligible, and are substantially better educated. The rank and file group membership, while poor, is also uniquely well connected (in terms of relationships to village leaders and politically active (direct involvement in village politics and attendance of village meetings). We therefore find TASAF to be relatively well targeted towards the poor at every level of decisionmaking, but also consistently to favor units that are the most active in the political space.

It is worth considering the fact that these VG projects are supposed to be undertaking an entrepreneurial activity before we place any normative judgments on this targeting. It might reasonably be argued that finding the poorest people in the poorest parts of one of the poorest countries in the world is not a good way to kick-start entrepreneurial activity. Such individuals may be affected by any number of poverty traps, among which might number the lack of human capital and entrepreneurial contacts, high levels of risk aversion, very high marginal utility from immediate consumption, and high discount rates. Therefore it seems unlikely that a perfectly poverty-targeted program would be successful in creating sustainable business ventures. This suggests that the VG program will manifest some tension between the concepts of 'capture', in which we expect the inclusion of wealthy or powerful individuals to indicate a hijacking of TASAF funds by the non-poor, and the impact of the program, which will likely require strong contacts with established businesspeople in order for the group members to see many dynamic benefits. Seen in this light, a VG targeting process which has managed to form groups of individuals who are very poor but are relatively well-connected, and to give these groups leaders who are less poor and signally well-educated, may be a triumph of effective targeting. Answering this question in any more detail requires that we understand how group composition drives impacts, a question which our ongoing randomized study will be able to answer. Hence while this paper studies the *incidence* of TASAF funding, the ongoing project will hope to be able to answer the *efficacy* of this elaborate CDD funding mechanism at identifying groups with the 'right' blend of attributes.

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TABLES.

Table 1.

TASAF Applications Received per 1000 People in Ward:

	OLS		Between Districts Only		Within Districts Only	
Poverty Headcount Ratio	-4.21***	-0.46	-10.22***	-3.78	0.63	0.7
	(-7.119)	(-0.552)	(-3.884)	(-1.318)	(0.96)	(0.98)
Population, 000		-0.01		0		-0.03
		(-0.368)		(-0.829)		(-1.606)
Percent Urban		0.02**		0.04		0
		(2.33)		(1.15)		(-0.538)
Dependency Ratio		0.43		1.57		0.44
		(1.10)		(0.91)		(1.02)
Fraction Illiterate		-0.42		5.34		-0.89
		(-0.450)		(1.24)		(-0.908)
Fraction with Radio or Phone		5.72***		10.26**		1.01
		(4.86)		(2.36)		(0.66)
Inequality (Theil_L)		-8.82***		-5.75		0.85
		(-2.845)		(-0.560)		(0.33)
Ward Council CCM vote share		0.71		-3.09		2.38
		(0.40)		(-0.326)		(1.56)
Ward Vote Margin, victor to runner-up		-0.68		2.38		-2.02**
		(-0.568)		(0.41)		(-2.092)
Coparty dummy, Ward & Parliament		-0.06		-1.74		0.02
		(-0.152)		(-0.770)		(0.06)
Non-CCM Coparty, Ward & Parliament		-1.97***		-4.41**		0.23
		(-4.148)		(-2.376)		(0.60)
Ward Voter Turnout (votes/registered)		5.56***		11.49*		1
		(3.90)		(1.72)		(0.78)
Ward Voter Registration (reg./population)		8.80***		12.54**		2.76
		(3.44)		(2.05)		(1.21)
Observations	2456	2197	119	119	2456	2197
R-squared	0.022	0.112	0.146	0.375	0.379	0.386
District-Level Fixed Effects:	N	N	N	N	Y	Y

*** p<0.01, ** p<0.05, * p<0.1. Ward-level analysis weighted by ward population. Between regression run at the district level and weighted by district population. ER=1275 Tsh/US$.

Table 2.

Percentage of TASAF Applications Funded per Ward:

	OLS		Between Districts Only		Within Districts Only	
Poverty Headcount Ratio	27.48***	10.65	56.48***	39.95**	4.42	0.76
	(4.17)	(1.44)	(3.00)	(2.05)	(0.62)	(0.10)
Population, 000		0.03		-0.03		0.24*
		(0.29)		(-1.533)		(1.69)
Percent Urban		-0.02		0.28*		-0.14*
		(-0.354)		(1.73)		(-1.922)
Dependency Ratio		0.72		-13.36		11.48**
		(0.17)		(-1.190)		(2.39)
Fraction Illiterate		33.49***		46.52*		24.89*
		(3.18)		(1.66)		(1.84)
Fraction with Radio or Phone		-9.78		-7.96		25.52*
		(-0.964)		(-0.323)		(1.83)
Inequality (Theil_L)		69.2		41.77		26.18
		(1.60)		(0.72)		(0.63)
Ward Council CCM vote share		-5.05		-91.85		32.01
		(-0.188)		(-1.185)		(1.62)
Ward Vote Margin, victor to runner-up		10.12		64.19		-7.54
		(0.68)		(1.39)		(-0.686)
Coparty dummy, Ward & Parliament		6.78*		22.39**		-4.56
		(1.76)		(2.29)		(-1.058)
Non-CCM Coparty, Ward & Parliament		12.3		40.47***		20.87**
		(1.27)		(3.49)		(2.12)
Ward Voter Turnout (votes/registered)		31.95*		71.2		10.14
		(1.72)		(1.55)		(0.50)
Ward Voter Registration (reg./population)		1.54		-82.77*		27.66
		(0.08)		(-1.902)		(1.51)
Observations	2456	2197	119	119	2456	2197
R-squared	0.011	0.04	0.094	0.353	0.218	0.236
District-Level Fixed Effects:	N	N	N	N	Y	Y

*** p<0.01, ** p<0.05, * p<0.1. Ward-level analysis weighted by ward population. Between regression run at the district level and weighted by district population. ER=1275 Tsh/US$.

Table 3.

National Village Fund TASAF Spending per person (in US Dollars), Ward level:

	OLS		Between Districts Only		Within Districts Only	
Poverty Headcount Ratio	1.24***	0.75*	0.88	0.05	1.28***	0.63
	(3.36)	(1.67)	(0.52)	(0.04)	(2.59)	(1.16)
Population, 000		-0.05***		-0.01***		-0.03***
		(-6.672)		(-4.628)		(-5.528)
Percent Urban		0.01**		0.01		-0.01**
		(2.32)		(0.89)		(-2.350)
Dependency Ratio		-0.1		0.41		0.79***
		(-0.386)		(0.48)		(2.78)
Fraction Illiterate		1.50**		3.62**		-0.37
		(2.26)		(1.99)		(-0.547)
Fraction with Radio or Phone		-0.56		-0.81		1.17
		(-0.898)		(-0.445)		(1.45)
Inequality (Theil_L)		3.41*		24.21***		0.24
		(1.69)		(3.50)		(0.14)
Ward Council CCM vote share		1.36		-0.1		2.73**
		(0.68)		(-0.0121)		(2.10)
Ward Vote Margin, victor to runner-up		-0.67		-0.47		-1.22*
		(-0.610)		(-0.0943)		(-1.726)
Coparty dummy, Ward & Parliament		0.81***		2.08***		-0.05
		(3.98)		(3.19)		(-0.236)
Non-CCM Coparty, Ward & Parliament		-1.00**		0.61		0.73
		(-2.161)		(0.83)		(1.51)
Ward Voter Turnout (votes/registered)		6.84***		10.88**		3.86***
		(5.15)		(2.56)		(3.84)
Ward Voter Registration (reg./population)		4.72***		11.29***		3.08***
		(4.40)		(3.17)		(3.35)
Observations	2456	2197	119	119	2456	2197
R-squared	0.004	0.125	0.002	0.461	0.37	0.431
District-Level Fixed Effects:	N	N	N	N	Y	Y

*** p<0.01, ** p<0.05, * p<0.1. Ward-level analysis weighted by ward population. Between regression run at the district level and weighted by district population. ER=1275 Tsh/US$.

Table 4.

Difference between Actual and Allocated Spending, District-level:

Dependent variable is difference between amount spent as of August 2008 and the amount reported on web as allocated to a district.	**All Districts**		**Only Districts with ABOVE-average spending-to-allocation ratio**		**Only Districts with BELOW-average spending-to-allocation ratio**	
Poverty Headcount Ratio	0.96	0.76	3.35	-0.17	0.46	1.82*
	(1.20)	(0.77)	(1.66)	(-0.0750)	(0.55)	(1.74)
Dependency Ratio		-0.13		0.95*		-0.75
		(-0.278)		(2.00)		(-1.485)
Fraction Illiterate		1.14		2.82		0.73
		(0.85)		(1.51)		(0.56)
Fraction with Radio or Phone		-2.18**		-1.24		-0.23
		(-2.105)		(-0.638)		(-0.191)
Inequality (Theil_L)		5.81*		3.68		0.7
		(1.73)		(0.91)		(0.11)
Ward Council CCM vote share		-0.49		0.46		-4.4
		(-0.173)		(0.13)		(-1.234)
Abs Dev. From 50%, Ward CCM vote		1.54		-2.24		5.09
		(0.43)		(-0.468)		(1.18)
Coparty dummy, Ward & Parliament		0.76		-0.06		0.78
		(1.50)		(-0.0510)		(1.24)
Ward voter turnout (votes/pop)		9.45***		9.98**		4.09
		(3.08)		(2.42)		(1.24)
Observations	119	119	54	54	65	65
R-squared	0.008	0.208	0.051	0.246	0.005	0.195

*** p<0.01, ** p<0.05, * p<0.1. Analysis weighted by district population.

Table 5.

Application & Funding for Decentralized versus Centralized Districts:

	Applications per 1000 people		Percent of Applications Funded		Funding per Capita, USD	
District Ever Disqualified from Decentralization:	-0.44	6.67	3.59	55.53	0.41	-3.89
	(-0.862)	(1.14)	(0.88)	(1.27)	(1.34)	(-1.150)
Poverty Headcount Ratio	-3.93*	-3.77	26.7	46.72*	1.01	0.09
	(-1.664)	(-1.248)	(1.26)	(1.74)	(0.75)	(0.06)
Disqualified * Poverty Headcount Ratio		0.27		-52.86		2.24
		(0.06)		(-1.328)		(0.74)
District Population (000)	-0.00**	-0.00***	-0.03**	-0.03**	-0.01***	-0.01***
	(-2.388)	(-3.028)	(-2.041)	(-2.001)	(-5.679)	(-5.310)
Ward Voter Registration (reg./population)	21.21***	24.91***	-23.79	-0.68	10.46***	8.40***
	(4.56)	(4.95)	(-0.654)	(-0.0153)	(4.03)	(3.16)
Disqualified * Voter Registration		-15.66		-71.19		7.58
		(-1.444)		(-0.952)		(1.17)
Observations	115	115	115	115	115	115
R-squared	0.328	0.345	0.218	0.236	0.357	0.364

*** p<0.01, ** p<0.05, * p<0.1. District-level analysis weighted by district population. ER=1275 Tsh/US$. 42% of districts in the sample are disqualified at any time during the 2006-2010 period.

Table 6.

Fraction of Application & Accepted Project, by Project Type.

Type of TASAF Project:	**Infrastructure**		**Food-for-Work**		**Vulnerable Groups**	
	Share of Ward-level Applications	Share of Ward-level Funded Projects	Share of Ward-level Applications	Share of Ward-level Funded Projects	Share of Ward-level Applications	Share of Ward-level Funded Projects
Poverty Headcount Ratio	0.2133***	0.0814*	-0.0362	0.0535*	-0.1771***	-0.1349***
	(5.35)	(1.81)	(-1.396)	(1.76)	(-5.273)	(-3.656)
Ward-Level Inequality	-0.3191	-0.5902***	-0.2086	0.0211	0.5277**	0.5691***
	(-1.293)	(-2.643)	(-1.341)	(0.20)	(2.30)	(2.90)
District Population (000)	-0.0018***	0.0005	0.0014**	-0.0003	0.0003	-0.0002
	(-3.356)	(0.84)	(2.51)	(-0.789)	(0.58)	(-0.350)
Ward Voter Registration (reg./population)	-0.4448***	-0.1712*	0.3410***	-0.1136***	0.1038	0.2848***
	(-5.423)	(-1.780)	(4.64)	(-2.914)	(1.34)	(3.12)
Observations	2147	1860	2147	1860	2147	1860
R-squared	0.081	0.016	0.052	0.01	0.04	0.044

*** p<0.01, ** p<0.05, * p<0.1. All analyses weighted by ward-level population.

Table 7 . Summary Statistics by Survey Stratum.

	Non-vulnerable			Vulnerable					
	Village Elites		Non-Vulnerable	Eligible Non-Beneficiaries		TASAF group leaders		Rank & File group members	
Age	48.58	***	50.15	60.30	***	54.03	***	58.01	***
Percent Male	95.06	***	79.17	49.71	***	60.28	***	47.39	***
Secondary or post-secondary edu	86.42	***	54.30	29.68	***	62.78	***	31.22	***
Unimproved latrine	23.05	***	38.89	41.09	***	33.61	**	39.63	
Own Mobile Phone	76.13	***	31.21	20.62	***	28.06		14.83	***
# days eaten meat in past week	1.43	***	0.87	0.67	***	0.50	***	0.46	***
Total HH Consumption	45005.03	***	32021.49	27593.25		28424.87		22399.68	***

*** p<0.01, ** p<0.05, * p<0.1. Tests are t-tests of differences in means from the Non-Vulnerable group.

Table 8 . Poverty Indexes.

FGT Indexes using Total Consumption per capita

	Village Elites	Non-Vulnerable	Eligible Non-Beneficiaries	Group Leaders	Group Rank & File
P0	0.198	0.415	0.514	0.403	0.573
P1	0.057	0.158	0.185	0.136	0.226
P2	0.023	0.08	0.09	0.065	0.117

Table 9 . Who Becomes a Group Member or Group Leader?

Welfare indicator is:	**Mean per capita HH Expenditure**		**Headcount Index**	
	Group Member	**Group Leader**	**Group Member**	**Group Leader**
Welfare indicator	-0.012**	0.022**	0.027	-0.086***
	(0.01)	(0.02)	(0.15)	(0.00)
HH Head has completed at least Standard V Schooling	-0.009	0.224***	-0.013	0.226***
	(0.62)	0.00	(0.45)	0.00
HH attended village meeting in the past three months	0.078***	0.040	0.079***	0.045*
	(0.00)	(0.13)	(0.00)	(0.09)
HH attended village meeting in the past year but not in the past three months	0.055	0.104	0.056	0.106
	(0.24)	(0.14)	(0.23)	(0.13)
Any HH Member holds govt or village committee office?	0.126*	0.063	0.130*	0.070
	(0.06)	(0.24)	(0.06)	(0.19)
Any HH Member related to kit chair, vill chair or vill VEO?	0.176**	0.018	0.179**	0.020
	(0.03)	(0.82)	(0.02)	(0.80)
HH Member belongs to other VG project	0.142***	-0.020	0.146***	-0.018
	(0.00)	(0.58)	(0.00)	(0.60)
Observations	667	723	667	723

*** p<0.01, ** p<0.05, * p<0.1. Robust p-values in parentheses. Sample consists of all eligible (vulnerable) households, and so regression coefficients give difference between beneficiaries and average eligible non-beneficiaries.

FIGURES.

Figure 1. Mean Consumtion per Capita, by District.

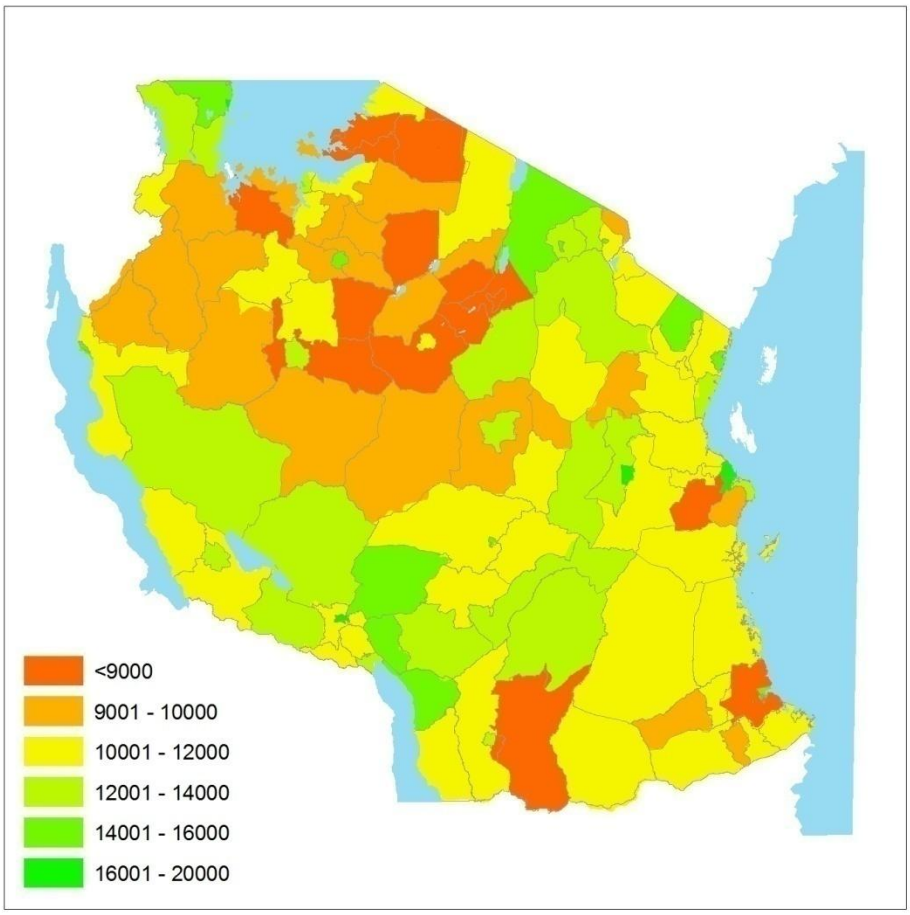

Figure 2. Applications per 1000 People, Ward-Level.

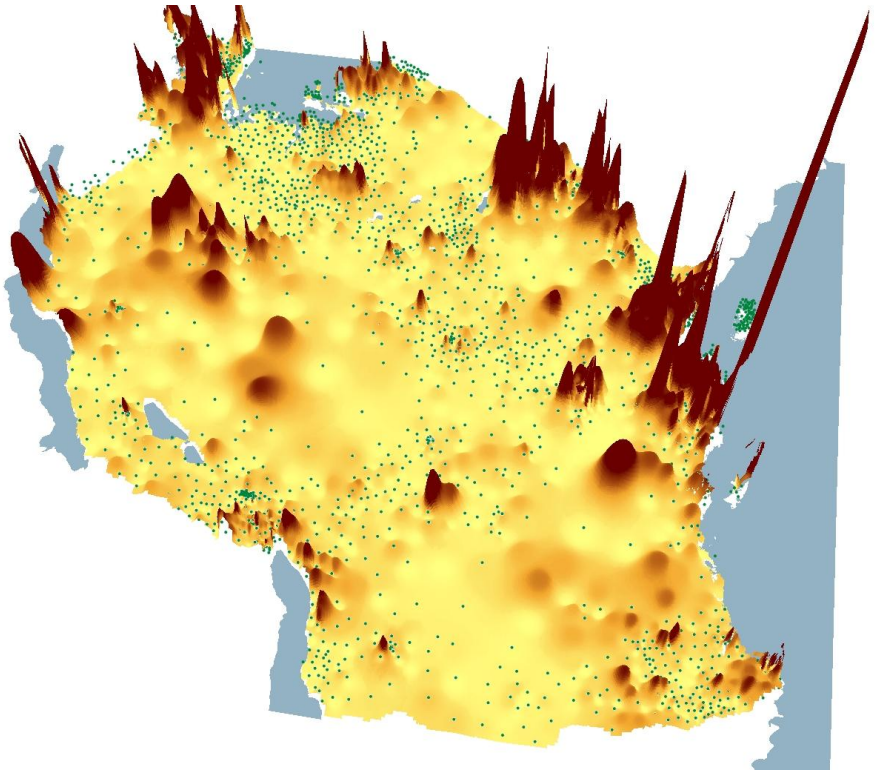

Figure 3. Final TASAF Projects per capita.

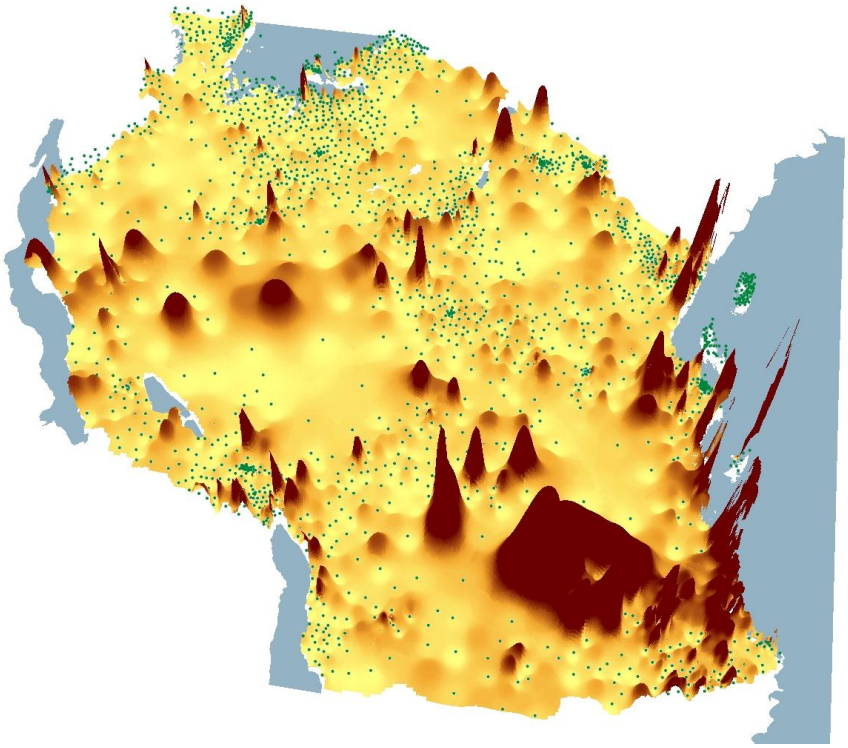

Figure 4.

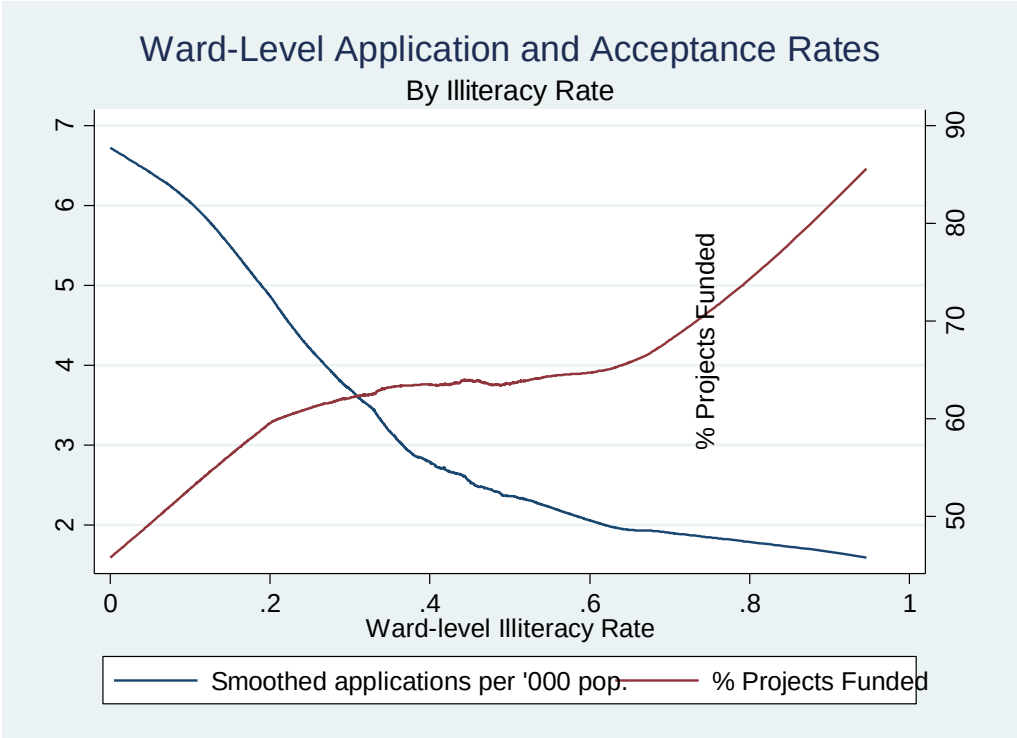

Figure 5.

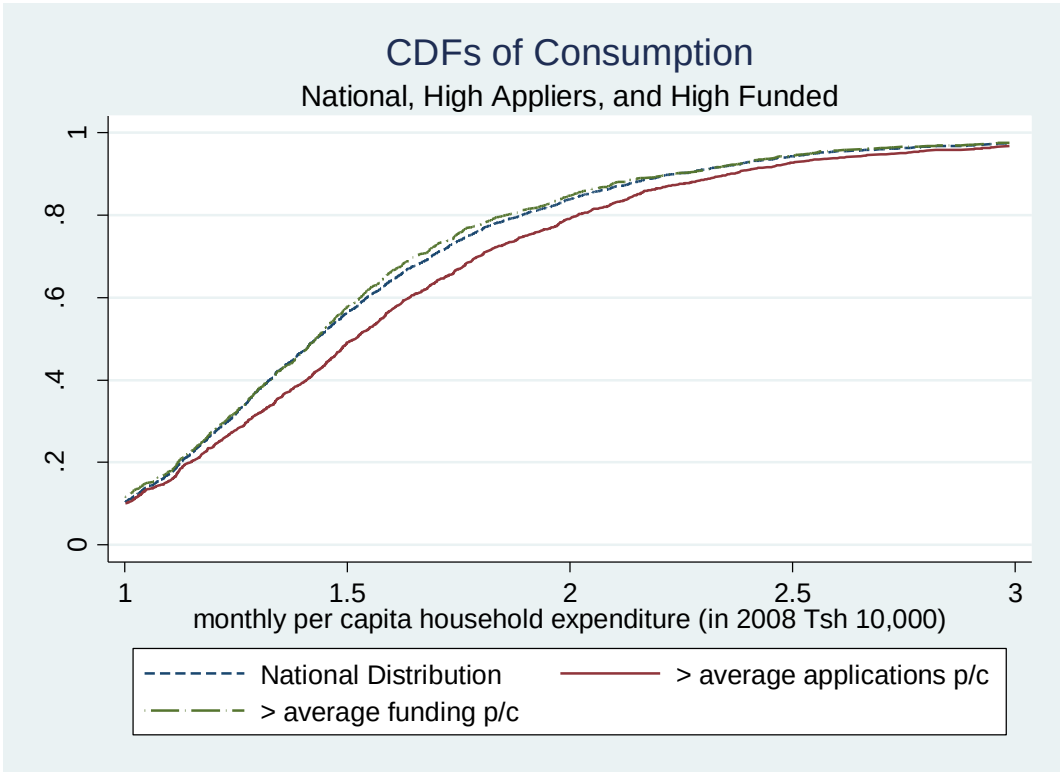

Figure 6.

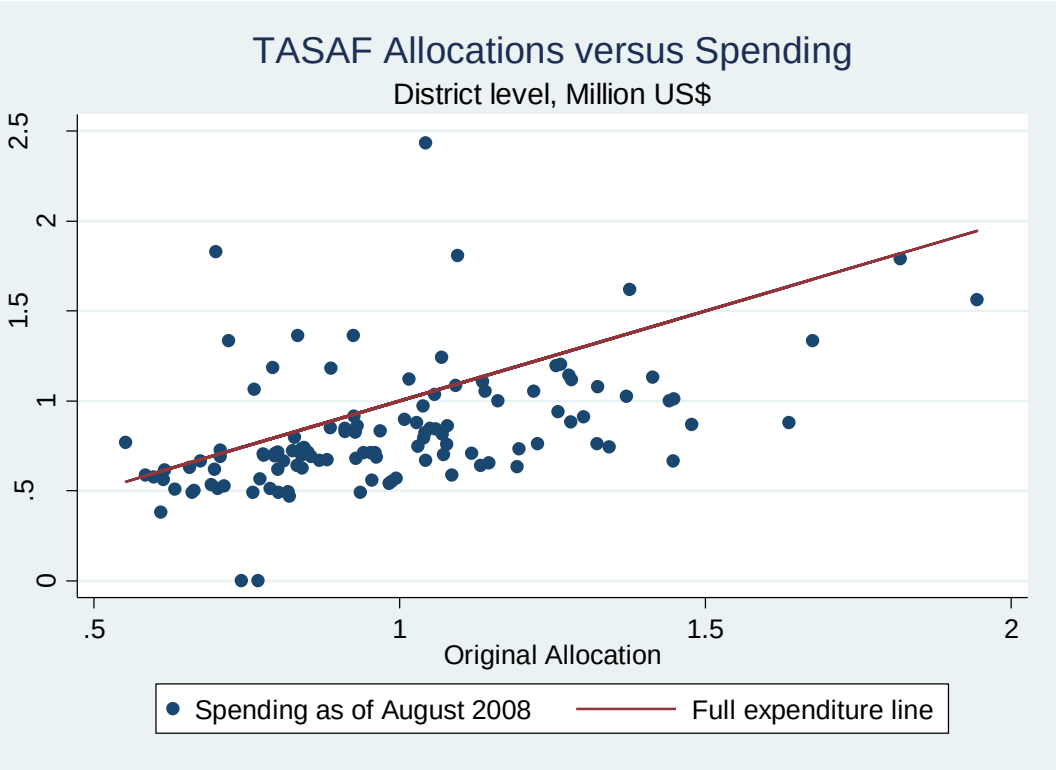

Figure 7.

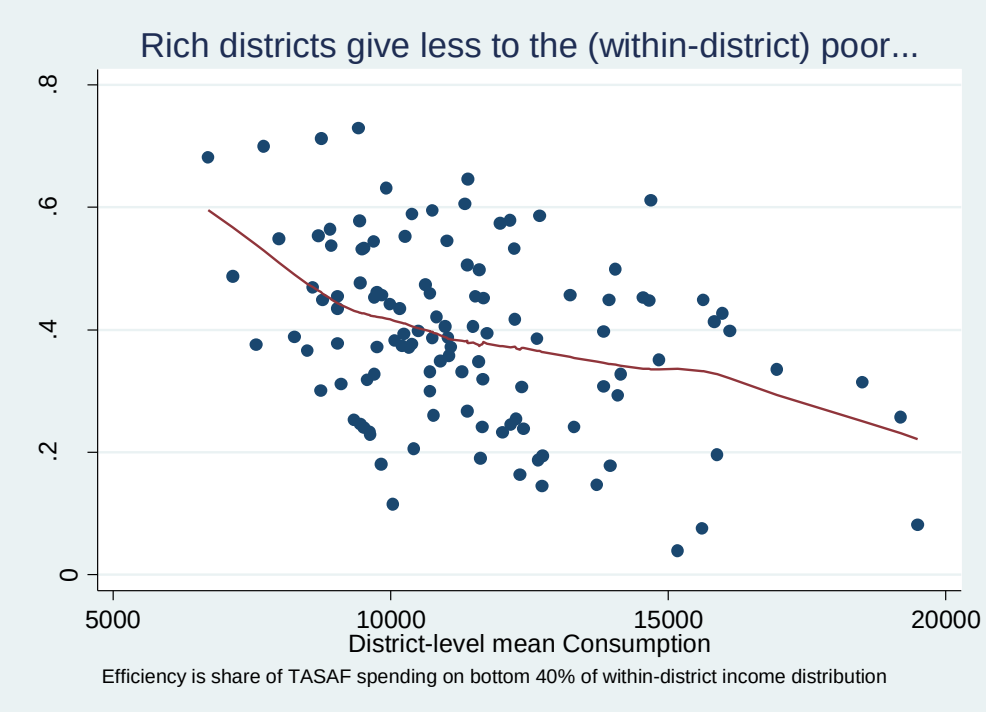

Figure 8.

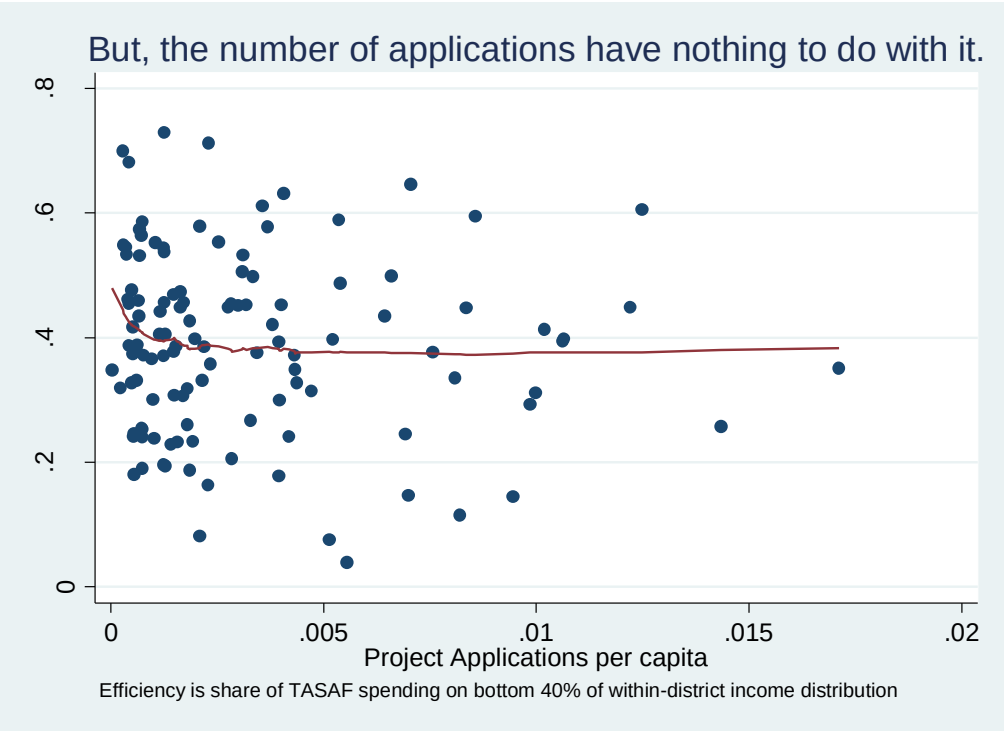
But, the number of applications have nothing to do with it.
0
.2
.4
.6
.8
0
.005
.01
.015
.02
Project Applications per capita
Efficiency is share of TASAF spending on bottom 40% of within-district income distribution

Figure 9.

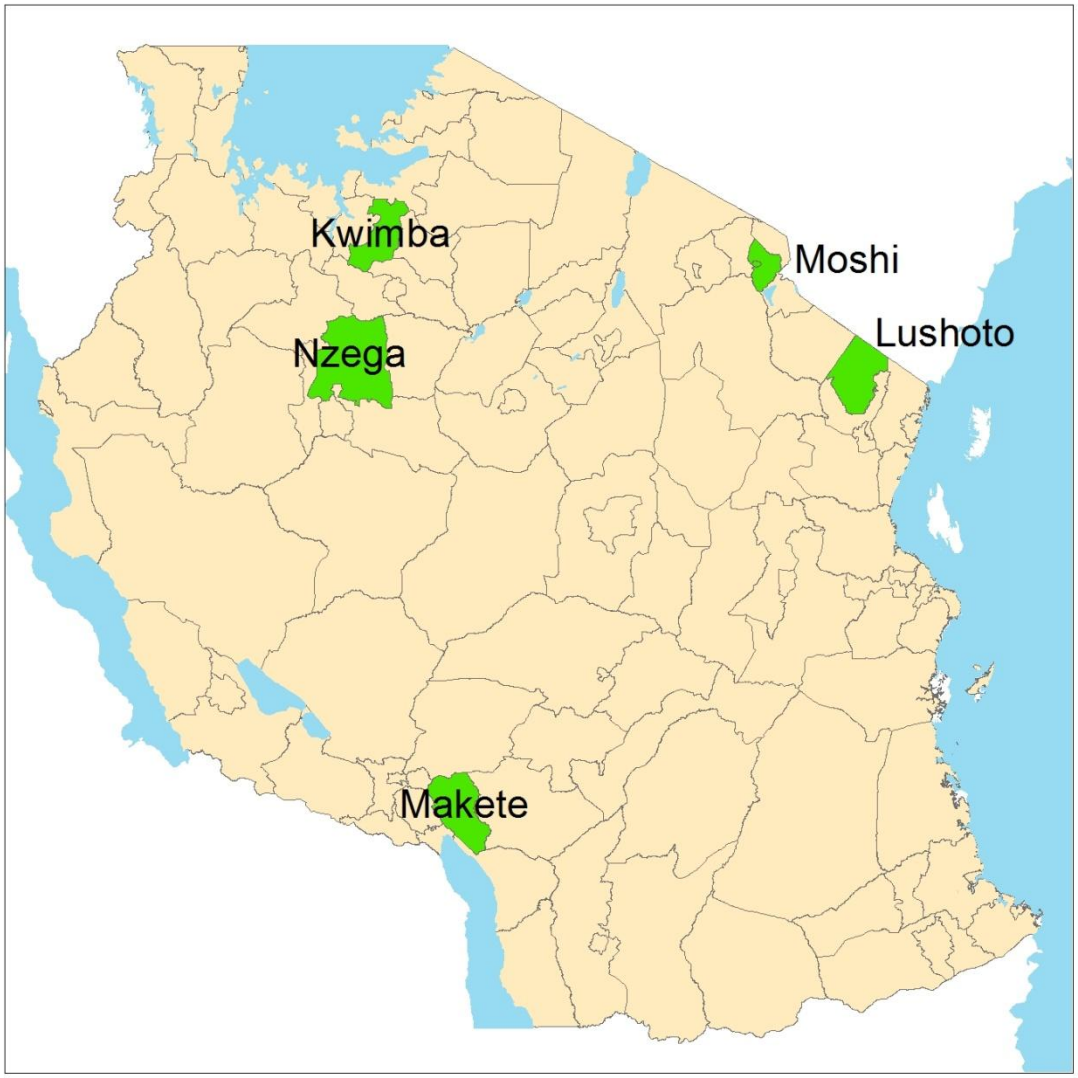

Figure 10.

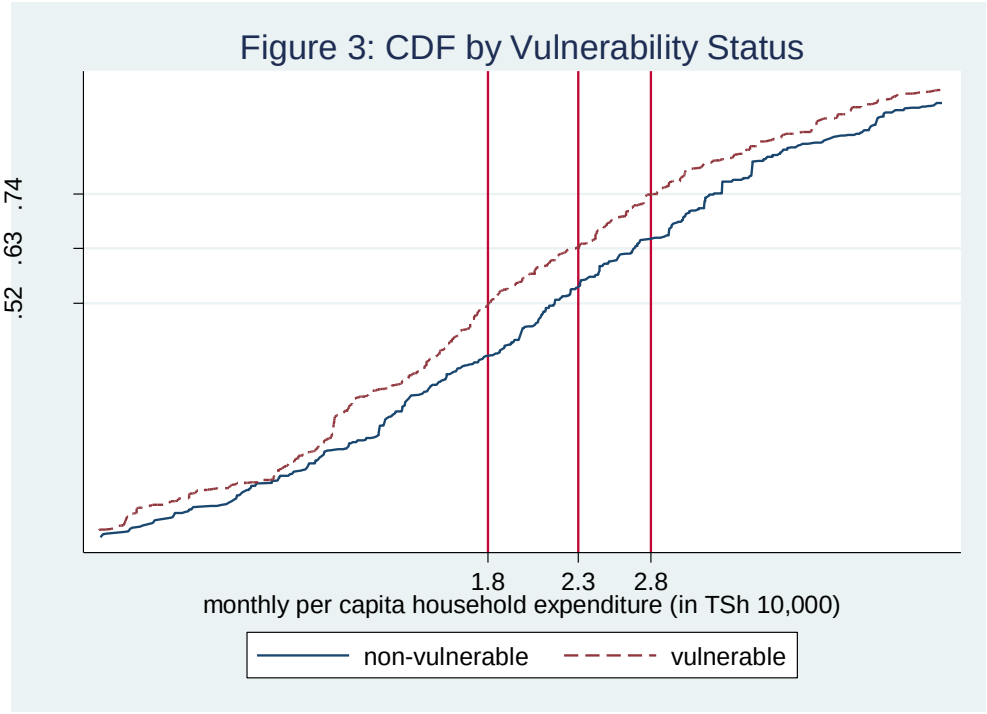

Figure 11.