A Client-Community Assessment of the NGO Sector in Uganda*

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Abstract

Using original data from client-community assessments, we examine motivations in the Ugandan NGO sector. In general, client-community satisfaction with NGO interventions is high, even though some NGO staff are viewed as unresponsive, underskilled, or self-serving. We find evidence that NGOs endeavour to redress the balance between rich and poor, although more remote communities suffer neglect, possibly for cost reasons. NGOs are less inclined to maintain a permanent presence in more remote and poorer client-communities, which impacts negatively on their satisfaction. We also find evidence that NGOs too often operate in the same location, resulting in some duplication of effort. Finally, results indicate that community participation enhances satisfaction.

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1. Introduction

Over the last two decades there has been a significant increase in the involvement of non-governmental organizations (NGOs) in the development process. This is a response, in part, to the growing frustration and impatience of donors with the perceived failure of governmental development assistance to generate growth and alleviate poverty. It may also reflect the apparent success of some non-governmental development initiatives, such as the Grameen Bank in Bangladesh, during the same period (e.g. Glaeser, Sacerdote & Scheinkman 1996, Edwards & Hulme 1995, Farringhton, Bebbington, Wellard & Lewis 1993). Governments in both developed and developing countries are responding to this situation by fostering partnerships with the NGO sector. But such partnerships can only enhance development if the public interest is better served by funding NGOs rather than governments.

It is reasonable to assume that NGOs have greater autonomy than line ministries. This being the case, the motivations of NGOs and their staff need to be taken into account when designing the laws and systems that regulate the increasing number of NGOs and facilitate closer government-NGO cooperation. Our ideal and stylized view is of NGOs working to redress the welfare imbalance between rich and poor, using resources donated by the former to provide goods and services to the latter. But there are many accounts, some quite spectacular, supporting an alternative view. Consider, for example, the Movement for the Restoration of the Ten Commandments of God, a registered Ugandan NGO which is reported to have killed more than 700 of its, generally quite poor, members or followers in the late 1990's (e.g. Cauvin 2000, Wangah 2000). But both bad and good accounts relating to specific NGOs can be misleading. What policymakers need is an evaluation of the motivations and performance of a representative sample of their nations' NGOs.

Case studies and small-sample surveys of NGOs have provided many valuable insights into

the role of particular factors in ensuring NGO efficiency, longevity, and success (e.g. Acharya, Aryal, Karmacharya & Meyer 1999, Belshaw & Coyle 2001, Cannon 2000, Jagannathan 2003, Riddel, De Coninck, Muir, Robinson & White 1995). However, there have been very few evaluations of entire countries' NGO sectors and those that have been undertaken have tended to be descriptive and qualitative in nature (e.g. Gariyo 1995, Johnson & Johnson 1990, Pratt & Sahley 2003). As a consequence, we know very little about the motivations and performance of either NGOs in general or what we might refer to as a representative NGO.

The objective of this paper is to take a first step towards performing a nationally representative evaluation of NGO motivations. Our approach focuses on the levels of satisfaction that a large and nationally representative sample of NGOs generates within its client-communities. The evaluation presented here is of the Ugandan NGO sector and is based on data collected during 268 structured group interviews involving over 2500 individuals. The resulting sample of evaluations is large enough to support an econometric analysis of Ugandan NGOs' motivations. Thus, the contribution of this paper is twofold: it presents an innovative methodology for involving client-communities in the evaluation of an entire nation's NGO sector, and it illustrates the value of that methodology through an application to the Ugandan NGO sector.

The methodology suffers from several major constraints and resultant shortcomings that are worthy of note. First, at least in its application to Uganda, the methodology could not support an assessment of cost minimization or technical efficiency. The data also do not allow comparisons, along these dimensions, of NGOs and other service providers such as government facilities. This is because the client-community assessments could not be matched with data on quantities of actual physical services provided by NGOs. Such an analysis might be possible if one restricted the research to NGOs specializing in the provision of specific, fairly standard, services such as healthcare and children's schooling (e.g. Reinikka & Svensson 2003, Lindelow, Reinikka

& Swensson 2003). However, the large majority of Ugandan NGOs are neither specialized nor involved in these types of activities. Many focus on awareness raising, advocacy, and training, the outputs of which are extremely difficult if not impossible to quantify. And many assume a holistic approach to helping an often vaguely defined target group. Thus, they engage in different activities in different locations depending on the needs they perceive and the resources they can access.

Some analysis of cost minimization would be possible if one were able to align client-community assessments with cost data. However, as documented by Barr, Fafchamps & Owens (2003), Ugandan NGOs do not typically charge for their services and their clients are unaware of the full cost of the services rendered. Cost data collected directly from the NGOs themselves can also be problematic. Despite the fact that Ugandan NGOs tend to be run by well educated and apparently entrepreneurial individuals, few keep detailed financial records. In part, this may reflect the general absence or weakness of institutions that hold NGOs accountable. In aggregate the Ugandan NGO sector is primarily funded by international NGOs and bilateral donors that require feedback on how funds are used. However, these funds accrue to only a handful of NGOs. The majority rely on membership fees and small grants from larger domestic NGOs that have less onerous reporting requirements. Further, even when detailed financial records are kept, NGOs rarely document how much they spend in any particular location. Few Ugandan NGOs operate nationwide, many operate in only two or three districts, and most operate in only one (see Figure 1). However, even the latter of these three groups tends to operate in more than one local community within the district. Finally, even if accurate and sufficiently detailed financial records were kept, they could generate misleading analytical results. Costs would indeed be subject to severe understatement because many Ugandan NGO inputs are non-monetary; they take the form of volunteer time and complimentary use of facilities and equipment (Fafchamps

and Owens 2005). Imputing values for these inputs is theoretically possible, but in practice, is hindered by the generally sporadic and part-time nature of NGO operations (Barr, Fafchamps & Owens 2003).

Given these limitations, we restrict our attention to something we can assess, namely the level of satisfaction that NGOs generate among their clients, and we investigate whether NGOs geographically allocate their efforts and resources so as to redress existing imbalances in welfare between communities. Adressing a similar issue, Fruttero and Gauri (2005) find that community needs have little influence on where Bangladeshi NGOs' locate new interventions. Here we focus on client community satisfaction with NGO interventions, and on how intervention quality varies across communities depending on community characteristics. Taking a utilitarian welfare function as our benchmark, we find evidence that Ugandan NGOs endeavour to redress the balance between rich and poor communities. We also find that, NGOs are less inclined to maintain a permanent presence in poorer client-communities and that this significantly affects the satisfaction of such communities. The level of community involvement in NGO decision making also affects community satisfaction, with more involved communities being more satisfied. Some NGO staff and representatives are perceived as unresponsive, less than good at what they do, and self- rather than community-serving, and these perceptions are negatively associated with client-community satisfaction. Finally, we find evidence that NGOs too often operate in the same location, resulting in duplication of effort.

The paper has six sections. Section 2 describes our conceptual framework and empirical strategy. In Section 3 we describe the data collection approach and sampling methodology. In Section 4 we describe how the key variables in our dataset is generated during the client-community evaluation meetings and present descriptive statistics. The econometric analysis is presented in Section 5. We conclude in Section 6.

2. Conceptual framework

We wish to test whether NGOs geographically allocate their funding so as to redress existing welfare imbalances among communities. To do this, we construct a first best benchmark against which we can compare the performance of NGOs. Consider an ideal NGOs behaving like a benevolent social planner. The NGO has financial resources M for the provision of local public goods that it must allocate among various communities $j \in N$, where N is the total number of communities to be served. For the moment, assume that the communities are homogeneous so that all members have the same preferences and the same initial endowments of resources. We revisit this assumption later. Communities have preferences among various public goods G_k indexed by $k \in K$ where, for simplicity, we have standardized public goods so that all prices equal 1. Preferences can be represented as utility function $U_j(G_1, ...G_K)$.[1] Suppose that a financial amount M_j is allocated by the NGO to public good projects in community j. If the NGO behaves optimally, it should allocate M_j among competing public goods so as to maximize the following:

$$\max_{\{G_k\}} U_j(G_1, ...G_M) \text{ subject to } \sum_{k=1}^{K} G_k = M_j$$

The solution to this maximization has the form $V_j(M_j)$.

Now consider the allocation of resources among communities. If the NGO behaves like a utilitarian social planner, it should maximize aggregate welfare:

$$\max_{\{M_j\}} \sum_{j} V_j(M_j) \text{ subject to } \sum_{j=1}^{N} M_j = M$$

[1] To keep things manageable, we assume that the provision of public goods does not affect relative prices, so that local price specificity can be subsumed in community-specific preferences.

which leads to first order conditions of the form:

$$\frac{\partial V_i}{\partial M} = \lambda = \frac{\partial V_j}{\partial M} \text{ for all } i, j \in N$$

where λ is the Lagrange multiplier on the feasibility constraint $\sum_{j=1}^{N} M_j = M$. So, resources should be allocated across communities so as to equalize the marginal utility from an additional dollar of public good expenditure. If all communities have the same utility function, this means providing the same level of support to all communities.

If communities differ, however, resource allocation need not be equal. To illustrate this, suppose that:

$$V_j(M_j) = V(Y_j + M_j)$$

where Y_j represents the initial resource endowment of the community j. Further suppose that $V' > 0$ and $V'' \leq 0$. In this case, the optimal resource allocation is one that compensates for initial differences in endowments: less well endowed communities receive more. In this case, if we were to ask communities to evaluate the satisfaction provided by the NGO, we would expect it to decrease with Y_j: better off communities would receive less and consequently would have a lower judgement of the usefulness of the NGO.[2]

The above model can be generalized further by allowing the cost of providing public goods to vary across communities. This might be the case if some communities are more remote: delivering a public good to a more remote village is more costly because transportation required

[2] This model can be generalized by letting NGO services and private consumption be imperfect substitutes. If NGO services are normal goods, the rich wish to consume more of them than the poor. Consequently, the marginal utility of NGO services is higher among the rich (e.g. Dasgupta & Kanbur 2001, Dasgupta & Kanbur 2003). Put differently, prosperous communities derive at the margin more satisfaction from NGO services than the poor. This effect works in the opposite direction from the community reallocation effect outlined above and would thus bias the predicted negative relationship between community prosperity and NGO satisfaction towards zero. So, if we do find evidence of a negative relationship, it can be interpreted as evidence of an effort to favor poor communities.

greater resources. (Sharma and Zeller 1999) have indeed shown that, in the case of Bangladesh, NGOs tend to locate their micro-credit interventions in relatively accessible pockets of poverty rather than focusing on hard-to-reach communities. To capture this idea in a simple way, let $\tau(d)$ be 1 minus the proportion of the funds that are lost due to transport costs. Put differently, if M_j is spent on community j, after deduction of transport costs only τM_j worth of local public goods is produced. We have $\frac{\partial \tau}{\partial d} < 0$: more remote communities have a lower 'bang for the buck' effect. The NGO's optimization problem now is:

$$\max_{\{M_j\}} \sum_j V_j \left(\tau(d_j) M_j\right) \text{ subject to } \sum_{j=1}^{N} M_j = M$$

which yields first order conditions of the form:

$$\tau(d_i)\frac{\partial V_i}{\partial M} = \lambda = \tau(d_j)\frac{\partial V_j}{\partial M} \text{ for all } i, j \in N$$

To see how remoteness affects the allocation decision, assume that λ is constant and totally differentiate the above to see how M_j respond to changes in τ:

$$\begin{aligned} V' d\tau + \tau V'' dM &= 0 \\ \frac{dM}{d\tau} &= -\frac{V'}{\tau V''} > 0 \text{ whenever } V'' < 0 \end{aligned}$$

From this we see that, if $V'' < 0$, the NGO allocates more resources to communities with a higher τ, i.e., to less remote communities. The rationale is that remote communities are costly to serve and more good can be done with limited dollars by focussing on less remote communities. Thus, we would expect more remote communities to receive less and thus to be less satisfied with NGOs.

The above ideas form the basis of our empirical strategy. Let V_j be a measurement of community satisfaction about an NGO intervention and let Y_j and τ_j denote the initial resource endowment of the community j and its remoteness. How these measurements are obtained is discussed in the next section. The model presented above suggests that better endowed and more remote communities are less satisfied with the NGO intervention. To test the model, we might therefore estimate a regression of the form:

$$V_j = \alpha_0 + \alpha_1 Y_j + \alpha_2 \tau_j + u_j \tag{2.1}$$

and test whether $\alpha_1 < 0$ and $\alpha_2 < 0$.

The model can be further generalized to allow for heterogeneity among community members. Presumably, not all individuals within a community have the same preferences regarding public goods $\{G_k\}$. If we seek to ascertain the community's satisfaction with the NGO by interviewing a sample of the population, responses may differ depending on how well the preferences of the people interviewed are matched by the services being provided by the NGO. We might expect different people-types to have varying levels of influence over the NGOs activities, for example. To allow for this possibility, we add a vector of Z_j variables that measure the main characteristics of the responding client-community groups to the regression equation (2.1). The estimated model then is:

$$V_j = \alpha_0 + \alpha_1 Y_j + \alpha_2 \tau_j + \alpha_3 Z_j + u_j \tag{2.2}$$

Equation (2.2) constitutes what, for reasons that will soon be apparent, we call the reduced form model.

Above, we assume that community satisfaction depends only on outcomes, not on process. Yet many practitioners in the field insist that the way outcomes are reached affects the satis-

faction people derive from NGO (and other) interventions. As a result, many NGOs advocate a participatory approach and seek to involve their client-communities in their activities. In addition to its direct effect on utility, client involvement may improve allocative efficiency by ensuring a better match between community needs and NGO interventions.

In general, a participatory approach requires greater contact between NGO staff and client communities. This is likely impact more heavily on costs when client communities are more remote. Hence, one would expect NGOs to assume a less participatory approach in more remote communities.

It is immediately clear from the above reasoning that if participation by clients raises satisfaction – even without affecting outcomes – and if remoteness and prosperity have effects on participation that are similar to their effect on outcomes, regressing satisfaction on remoteness and prosperity cannot distinguish between their direct and process effects. For this reason, we reestimate the model with additional controls P_j for client participation:

$$V_j = \alpha_0 + \alpha_1 Y_j + \alpha_2 \tau_j + \alpha_3 Z_j + \alpha_4 P_j + u_j \tag{2.3}$$

If $\alpha_4 > 0$, this can be construed as evidence that participation raises satisfaction either directly or by improving the allocative efficiency of the NGO intervention. We also examine whether participation variables P_j vary significantly with remoteness and prosperity, as suggested above. Indeed if participation has a distinct effect on satisfaction, it is important to identify which factors affect participation.

3. Data collection methodology

Having presented our conceptual framework and empirical strategy, we now describe how the client-community evaluation of a representative sample of Ugandan NGOs can be executed.

In summary, our methodology involves randomly selecting a large sample of Ugandan NGOs, identifying one community served by each of these NGOs, and involving members of each of these communities in an evaluation of the NGO.

The selection of client-communities involves three steps. First, we determine the geographical coverage of the survey. The capital city, Kampala, is included given that many NGOs use Kampala as a base while operating throughout the country. In addition to Kampala, we focus on 14 districts randomly selected from a list of some 50 Ugandan districts. A small number of very remote districts are excluded from the selection on the basis of cost and because of the small number of NGOs registered therein. Districts in a state of unrest are also excluded in order to ensure the safety of enumerators and because the NGOs operating in these districts would not be functioning normally. The geographical sampling frame of the 15 districts (Kampala plus 14 rural districts) is listed in the first column of Table 1.

In the second step, we use the registers of NGOs held in the Office of the Prime Minister and the district headquarters to construct a list of NGOs whose headquarters are located in each of the 15 selected districts.[3] From this list we draw a random sample of 300 NGOs – 100 in Kampala and a self-weighting sample of 200 across the other 14 districts. The sampling proportions are 0.22 for Kampala and 0.58 for the other 14 districts, reflecting the large number of NGOs registered in Kampala. Undersampling in Kampala is justified by the fact that, as shown by Barr, Fafchamps & Owens (2003), many Kampala NGOs are not actually in operation while most of those registered in the district are.[4] The composition of the eventual NGO sample

[3] 451 NGOs that ultimately appeared on our list represent only 25 percent of those registered. In the other districts the corresponding proportion was 41 percent. In some cases we think these figures reflect the accuracy of the information on the location of the NGO headquarters contained in the registers. However, we also suspect that there are many 'ghosts', i.e., NGOs that have ceased to exist, while remaining in the registers. There is no formal procedure in place for removing NGOs from the register when they are no longer operating or fail to re-register at the prescribed time.

[4] When sampled NGOs could not be contacted they were usually replaced by another randomly selected NGO from the list relating to the corresponding district. 82 such replacements were made. In 12 cases, enumerators in remote areas were forced by circumstance to make replacements by whatever means they could. Ultimately 295

by district is presented in Table 1.

The third step is the selection of the client-communities. Each sampled NGO is asked to list up to 6 parishes in which it is active. One of these 6 parishes is then selected at random for a client-community evaluation.[5] In total, 268 client-community evaluations were undertaken. The resulting distribution of client-community evaluations across the 15 districts is presented in the last column of Table 1. When comparing these numbers with the corresponding numbers of NGOs it is important to bear in mind that some of the Kampala-based NGOs are evaluated in the rural districts. 66 evaluation meetings are conducted in Kampala and 202 across the other 14 districts.

Once we have selected the parishes to be involved in the client-community evaluation, the enumerators contact the parish chairman and make arrangements for a meeting. The chairman is asked to invite between six and ten community members to the meeting. The enumerators requests that men and women and people of all ages be represented but otherwise leaves the selection up to the chairman. This approach is not ideal; it probably biases our sample of respondents towards those who are politically closest to the chairmen and those who tend to get involved in group activities and interactions with outsiders. However, it is necessary, given the magnitude of our endeavour and the need to conserve time where possible. Our aim, by always involving the parish chairman, is to ensure that any bias thus generated is consistent across

NGOs were identified and contacted.

[5] A slightly more involved procedure is followed for Kampala-based NGOs because a considerable proportion of them operate in other districts and many are based in Kampala but do not serve communities there. Consequently, for Kampala-based NGOs, we first ascertain in which districts they operate. To find out whether the NGO operates in Kampala, it is asked to list the Kampala parishes – if any – within which they were active. This establishes whether the NGO operates in Kampala. Outside Kampala, enumerators in each of the 14 other districts draw a list all Kampala-based NGOs with a branch office in their district. One district is then randomly selected from all the districts in which the NGO operates.

Within districts, the selection of a parish to be the client-community for the evaluation exercise proceeds in much the same way as before. If the selected district of operation of the NGO is Kampala, one parish is randomly selected among those listed by the NGO. If the selected district is one of the other 14 districts included in the study, the NGO's branch office in that district is asked to list up to 6 parishes in which the NGO is active. One of these parishes is then randomly selected.

communities and, therefore, not a major hindrance in comparative analysis. The NGOs are never involved in the selection of the client-communities or any other aspect of the evaluation process.

To ensure that the data provided by each of the client-communities involved in the evaluation is comparable, structured group interviews are conducted in each of the client-communities following a well-defined interview protocol. The protocol aims at gathering information that quantifies client-communities' satisfaction with the performance of the NGO they have been selected to evaluate, how accessible the NGO is to the community, how participatory the NGOs' decision making practices are, and the client-communities' perceptions about the quality and motivations of the NGOs' staff and representatives. Each of these measures is elicited through an activity designed to be entertaining and easily understandable. Various indicators of community prosperity and isolation and the characteristics of the client-community respondent groups are also collected.

4. Descriptive analysis

The structured group interviews yield several measures of the client-communities' satisfaction with the NGOs they are evaluating. One of these is a measure of the communities' willingness to pay for the continued existence of the NGOs. To elicit this measure, we ask the client-community group to imagine that they find out that the NGO is going to stop doing its work in Uganda, that a large sum of money is needed to make it possible for the NGO to carry on doing its work, and that their parish has been asked to help find this money. Then, they are asked to imagine that the government gives their parish a grant and they are the committee that has to decide what to do with the grant. The government has said that they can share all, some, or none of the grant equally among the households in the parish and can contribute all, some, or none of

the grant to the NGO to help keep it working. The representatives are given a pile of beans representing the grant and asked to separate it into two piles, one representing the money that they wish to be shared among the households and one representing the money that they wish to help keep the NGO working. The proportion of the beans allocated to the NGOs is taken as an indicator of their willingness to pay, conditional on the availability of funds, for the continuance of the NGOs' activities.

Figure 2 contains a histogram for the willingness to pay measure. Nearly half of the client-communities are willing to give at least 60 percent of the grant to the NGO, suggesting a considerable level of satisfaction with NGO performance. Around 35 percent of client-communities are willing to give all of the grant, while only three percent would give none to the NGO. The mean proportion of the grant allocated to the NGO is just over 60 percent (see Table 2).

In addition to this willingness to pay measure, we ask the client-communities to evaluate the abilities and motivations of the staff and representatives of the NGOs. To facilitate this, we ask the community groups to indicate the extent to which they agree (on a five point scale) with several statements. Here, we focus on three statements: 'The NGO is always quick to respond when inhabitants of this parish or the parish as a whole ask for help'; 'The NGO representatives are good at what they do'; and 'The NGO exists to serve the purposes of its own staff rather than to help us'. Figure 3 presents the frequency distribution across the five point scale of agreement relating to each of these statements. The first two statements are positive, while the third is negative. We reverse the horizontal axis of the graph for the third statement so that the right hand sides of all the graphs correspond to a positive evaluation. In general the graphs suggest that the client-communities think highly of the NGOs' staff and representatives. Nearly 40 percent strongly agree that 'the NGO is always quick to respond when the inhabitants of this parish or the parish as a whole ask for help'. Over 50 percent strongly agree that 'the

NGO representatives are good at what they do'. And over 60 percent strongly disagree with the statement that 'the NGO exists to serve the purposes of its own staff rather than to help the community'. However, some negative perceptions are also evident. Nearly 10 percent strongly disagree with the statement about responsiveness to the needs of the community and a similar proportion strongly agree that the NGO staff are self-serving.

When estimating the models derived in section 2, we use the willingness to pay measure of community satisfaction as our dependent variable because it is this measure that explicitly captures the value of the NGO to the evaluating community, given the latter's geographical and material situation. In contrast, the statement-based evaluation measures are designed to provide the communities with an opportunity to be more objective, i.e., to evaluate certain aspects of the NGO without focusing on the value of those aspects to themselves. However, before discarding the statement-based measures, it is interesting to look at how they relate to willingness to pay (see Table 3). The top left hand panel of the table reports pairwise correlation coefficients. The willingness to pay, 'quick to respond', and 'good at what they do' measures are all highly, positively correlated with one another, while the 'self-serving' measure is highly, negatively correlated with each of the others. The top right hand panel of the table presents an OLS regression of the willingness to pay measure on the three statement-based variables. This model should be treated with extreme caution. In particular, it should not be used to support any causal statements as the estimated coefficients are likely to be subject to reporting bias. However, it is useful to note that the associations between the willingness to pay and two of the statement-based measures are significant in the regression despite the previously identified multicollinearity.

The lower panel of the table contains the results of an iterated principal factor analysis. The eigenvalue corresponding to the first factor represents a large proportion of the sum of all

the positive eigenvalues. This suggests that, to a considerable degree, willingness to pay and the three statement-based measures are all capturing a single underlying variable. Further, the loadings associated with this factor suggest that it might reasonably be referred to as satisfaction; it is positively related to the willingness to pay, 'quick to respond', and 'good at what they do' measures and negatively related to the 'self-serving' measure. Finally the measures of variable uniqueness reported in the bottom right hand corner of the table indicate that the derived factors tend to capture a relatively small proportion of the variance in willingness to pay measure; the willingness to pay measure is, somehow, more distinct, possibly because it is more subjective than the others.

To assess the extent to which NGO staff adopt a participatory approach, each client-community is asked whether the NGO either involves them in decisions about what activities are to be undertaken or asks them for feedback. Table 2 presents the answers to these questions. Respectively, 55 and 57 percent of the client-communities state that they are involved in defining the activities undertaken by the NGO and in providing feedback. In addition, we elicited one additional indicator of the NGOs commitment to a participatory approach. This indicator simply captures whether the NGO maintains a permanent presence in the community. Table 2 indicates that 62 percent of the evaluated NGOs maintain such a presence. The reader may be surprised to find that such a large number of NGO have a permanent presence in the parishes of their evaluation client- communities. This finding, however, is largely a reflection of the way in which the client-communities are selected for inclusion in the study.

To facilitate the quantification of community remoteness, we ask client-community respondent groups to estimate how far in kilometers their community is from three key institutions: the district headquarter, the local council (LC3) office, and the nearest hospital. We also ask how far they are from the nearest tarred road. The degree of remoteness of the sampled communities

varies considerably across the sample (see Table 3). The distance to district headquarters ranges from under half a kilometer to 64 kilometers. The average is 10 kilometers with, as expected, sampled communities in Kampala district being nearer. The distance to the nearest hospital varies between a few hundred meters and over 100 kilometers, with an average of 8 kilometers – less in Kampala. Local council (level 3) offices are between zero and 23 kilometers away, with a mean distance of 3 kilometers. Finally, the nearest tarred road is between zero and 400 kilometers away, the average distance being 10 kilometers.

The prosperity of the communities is assessed by asking respondent groups to estimate the prevalence of particular housing characteristics, ownership of certain consumer durables, paid employment, and access rights to cultivatable land within their communities. For each characteristic, they do this by dividing a pile of beans representing all the households in the community into those with and those without the characteristic. There is considerable variation across the sample with respect to indicators of prosperity. On average, client-community groups estimate that 75 percent of the households in their communities have an iron roof (see Table 3), 48 percent have a cement floor in their home, 22 percent own a TV, 73 percent own a radio, 37 percent own a bicycle, and 8 percent own a car. On average, 18 percent of client-community households have at least one member in paid employment, and 60 percent have no access to land upon which to grow food. All of these proportions vary widely, typically between zero and 100 percent of households, across the sample. As expected, the incidence of iron roofs, cement floors, and landlessness is far greater in Kampala.

Data relating to the characteristics of the client-community respondent groups is collected during brief, one-to-one interviews with each respondent group member conducted after the evaluations are complete. In the one-to-one interviews, each respondent is asked about his or her age, education, religion, and whether he/she is a member, staff, or client of the evaluated NGO.

Table 4 presents the characteristics of the 2566 individuals who participated in the evaluations and shows how they are distributed across the client-community respondent groups. The average age of the participants is 38 years, although across groups the average age varies between 18 and 65. Women represent 43 percent of the participants in the evaluation. Some groups are entirely male and others entirely female, although the majority of groups are mixed. Christians make up the large majority of participants with 36 percent being protestant, 32 percent Catholic, and 7 percent Pentecostal. Muslims make up 20 percent of the participants. Levels of education among the participants are high by Ugandan standards, with considerable variation in educational attainment across the groups. Over the entire population of respondents, 21 percent have some tertiary education; 41 percent have primary and some secondary education; 32 percent have primary education only; and 6 percent have no education at all. Just over 2 percent of the client-community respondents turn out to be staff members of the NGOs they are asked to evaluate and at least one NGO staff member is present in 14 percent of the evaluation meetings. A further 39 percent of the participants are either members or clients of the NGOs they are asked to evaluate, either as members or clients and at least one such person is present in 75 percent of the evaluation meetings. This is not surprising since, as Barr, Fafchamps & Owens (2004) have shown, NGO membership - and the payment of a small membership fee – are often preconditions for becoming an NGO client, and our survey focuses on client communities.

5. Econometric analysis

5.1. Reduced form

We now turn to the econometric analysis of willingness to pay as a measure of community satisfaction. We begin with regression model (2.2). Our objective here is to assess whether NGOs allocate funds so as to reduce geographical imbalances in welfare. If they do so, we

expect more prosperous communities, i.e., those with greater resource endowments to be less satisfied with NGOs. We also recognize that remoteness raises the cost of service delivery – and thus reduces the 'bang-for-the-buck' generated by service provision. Consequently, we expect more remote communities to be less satisfied with NGOs.

Given the relatively small number of observations, we choose to proxy remoteness with a single variable, the value of which is determined by applying principle factor analysis to the four distance variables described above.[6] We proxy for the initial resource endowments of the client communities with three variables. The first, which captures durable asset holdings, is determined by applying principal factor analysis to the first six endowment indicators listed in Table 4.[7] The proportion of households with at least one member in paid employment and the proportion of landless are entered as separate independent variables. The landless are resource poor so, if NGOs behave in accordance with our model, communities with more landless households will be more satisfied with NGO services. In Uganda, paid employment is concentrated at either end of the income spectrum: waged and salaried employees in formal jobs tend to earn more than the average, while agricultural labourers earn significantly less. We expect the first group to dominate in cities and the second to dominate in rural areas. Thus, if NGOs behave in accordance with our model, rural communities with more households in paid employment will be poorer and so more satisfied with NGOs, while urban communities with more households in paid employment will be richer and hence less satisfied with NGOs.

[6] Iterated principle factor analysis was used and the first principle factor retrieved as our single proxy for remoteness. This factor has an eigenvalue that corresponds to 68 percent of the sum of all the positive eigenvalues. The scoring coefficients are 0.18100 for the distance to district headquarters, 0.49787 for the distance to nearest hospital, 0.15969 for the distance to local council (LC3) offices, and 0.35237 for the distance to nearest tarred road.

[7] Iterated principal factor analysis was used and the first principal factor retrieved as our single proxy for asset holdings. This factor has an eigenvalue that corresponds to 69 percent of the sum of all the positive eigenvalues. The scoring coefficients are 0.21763 for the proportion of households with iron roofs, 0.35498 for the proportion with cement floors, 0.18699 for the proportion with televisions, 0.21571 for the proportion with radios, 0.26194 for the proportion with cars, and -0.01656 for the proportion with bicycles. The negative coefficient on bicycles may reflect the presence of a more luxurious substitute, cars, in the question set.

By providing the client-community groups with hypothetical grants rather than exploring their willingness to pay for the continued existence of the NGO out of their own pocket, we hope to avoid the problem of variable ability to pay. However, if financial markets are imperfect and the client-community groups are variably credit constrained, this could affect their bean allocation decision. Further, omitted variable bias would arise if, as is likely, the prosperity indicator is correlated with credit constraints. To minimize this bias, we include a proxy for the extent to which the client-community is credit constrained. This proxy is a dummy variable that takes the value 1 if, during the structured group interview, client-community respondents either listed improved access to credit as one of their community's priority needs during a free listing exercise or agreed that it was a priority need when asked explicitly.

We include a number of characteristics of interview respondents to control for various possible reporting biases and heterogeneities in preferences across respondent types. For obvious reasons, we expect NGO staff and, possibly, members as well to be more interested in the continued functioning of the NGO. To the extent that bargaining power within the community affects the choice of public service provided by the NGO, we expect that the needs of women are less well served by the NGO and therefore we expect female respondents to be less satisfied with the NGO. We also include a Kampala dummy to control for possible differences in preferences between urban and rural populations.[8]

The regression results are presented in Table 5. The estimator is a two-limit tobit, with upper and lower limits on the proportion of the hypothetical grant allocated to the NGOs at zero (8 observations in the full sample) and one (62 observations in the full sample). Three

[8] In the regressions reported below we do not include any variables capturing the activities of the NGOs. In earlier runs of the regression analyses we experimented with a variety of activity dummy variables, some focusing on types of service provided (e.g., micro credit, agricultural extension, school construction), some on types of target client (e.g., children, the poor, refugees), and some on overall objective (e.g., community development, wildlife conservation). However, none of these assumed significant coefficients. We think that this reflects the holistic approach adopted by the majority of the NGOs in our sample.

regressions are presented. The first regression includes the full sample of client-communities, the second is for the rural client-communities only and the third is for the Kampala-based client-communities. While the regressions for the full sample and the rural sub-sample are significant (see p-values in last row of table), the model (2.2) appears to have no explanatory power in Kampala. This may be because remoteness is less of an issue in the capital city where all communities can be accessed with relative ease and residents in one neighborhood of the city can probably access service providers located in other neighborhoods, so that the prosperity of any particular neighborhood is less important in determining the geographical distribution of NGO activity. This being the case, we focus our discussion to the first two regressions.

Across both the full sample and the sub-sample of rural communities satisfaction declines as remoteness and communities' holdings of durable assets increase. These findings accord with the utilitarian model and are consistent with NGOs endeavouring to redress the balance between rich and poor. The estimated coefficients on employment also accord with the model - positive in rural areas and negative (though not significant) in Kampala. Landlessness has the wrong sign but is not significant. The coefficient on the credit constrained dummy variable is negative and significant for the full sample and the rural sub-sample, indicating that the hypothetical grant was not sufficient to control for communities differing abilities to pay. Both women and younger respondents appear less satisfied with NGOs suggesting that their needs are being less well served than those of men and older community members. However, all the other respondent characteristic variables, including the proportion of staff and members and clients present, are insignificant.[9]

[9] Replacing the proportions of staff and members and clients with dummy variables indicating that at least one such person was present does not change the results.

5.2. Participation

We now look at whether NGOs are more likely to adopt a participatory approach when working in less remote and more prosperous communities and whether participation affects client-community satisfaction. We focus on two aspects of participation, one relating to how involved the community is in NGO decision-making and the other relating to whether the NGO chooses to have a permanent presence in the communities it aims to serve. We construct an 'involvement score', which equals zero if the evaluated NGO involves the community in neither ex ante decision-making nor ex post project evaluation, one if it does one or the other, and two if it does both. The mean involvement score for the full sample of client-community evaluations is 1.12, although this figure conceals the fact that more than 80 percent of the sample have a score of either zero or 2. An ordered probit analysis taking this involvement score as the dependent variable and remoteness, the three measures of community prosperity, and the Kampala dummy as independent variables is presented in Table 8. The probits fail to explain any of the variation in the score across either the full sample or the rural sub-sample. However, in Kampala we see that involvement declines as remoteness increases. Permanent presence by the NGO in the community is proxied by a dummy variable that takes the value 1 if the NGO has an office or some sort of permanent structure within the parish and zero otherwise. A probit analysis taking this dummy as the dependent variable (see Table 9) indicates that, across both the full sample and the rural sample, NGOs are less likely to maintain a permanent presence in more remote and less prosperous communities.

As NGOs are less present in poor isolated communities, it is pertinent to ask whether it is this alone that is driving the previously identified relationships between satisfaction and remoteness and prosperity. Thus, we estimate equation (2.3), which models community satisfaction as a function of their own remoteness and prosperity while controlling for the extent to which the

NGO adopts participatory practices.

Table 9 presents the results of introducing the involvement score and the permanent presence dummy variable into the analysis of community satisfaction. The inclusion of these variables improves the significance of the regressions, although the model still fails to explain any of the variation in community willingness to pay across the Kampala sample. Across the full and rural samples, both greater community involvement and permanent NGO presence is associated with higher client-community satisfaction. Controlling for participation (involvement and permanent presence) marginally reduces the coefficient on the remoteness variable, while leaving all other aspects of the model essentially unchanged. This suggests that remoteness may be affecting client-community satisfaction with NGOs in part because NGOs tend to maintain a permanent presence only in less remote, more prosperous communities and in part for other reasons, possibly relating to the costs associated with working in more remote areas.

While compelling, we need to be cautious when drawing conclusions about the value of a participatory approach from this analysis. This is because these results could be driven by response bias. Whether an NGO maintains a permanent presence in a community is a matter of current fact. However, to answer our questions about community involvement in NGO decision making, the client-community representatives needed to recall and appropriately characterize past events. If community representatives are more likely to recall NGO endeavours to get them involved when the NGO's interventions turned out to be of value to them, this would bias the coefficient on the involvement score towards positive significance regardless of whether involvement leads to heightened satisfaction or not.

For 160 out of our full sample of 211 community evaluations, we have some data collected directly from the evaluated NGOs. Included among these data are indicators of whether the NGO conducts participatory workshops, whether they involve their client communities in ex

post project evaluations, and whether the NGO is domestic or international, a distinction which might affect not only the tendency of the NGO to adopt a participatory approach but also the NGO staffs' understanding of what it means to apply a participatory approach. We would expect each of these NGO-reported, dichotomous variables to be correlated with the client-communities' reports of involvement in NGO decision-making without being affected by the reporting bias described in the preceding paragraph. Thus, we can use them to instrument for the community-reported measure of involvement in the Tobit analysis and thereby control for any reporting bias.

The first column in Table 10 contains the single-stage Tobit model for the restricted sample of 160 community evaluations for which we can instrument. Restricting the sample causes only marginal changes in all the results of interest, although the credit constrained variable becomes insignificant. The second column contains the first stage of the two-stage analysis. Here, client-community-reported involvement is regressed (OLS) on all the other right hand side variables from the Tobit model as well as the three NGO-reported instrumental variables. One of the instrumental variables is highly, individually significant, while the others are not. The joint significance of the three instrumental variables is better than five percent, although their partial R-squared is only 0.07 indicating that they are rather poor instruments. This notwithstanding, they are sufficient to maintain the significance of community-reported involvement in the second stage regression (see third column).[10] The two-stage procedure also yields a test for the endogeneity of the community-reported involvement variable. The test statistic is the significance of the first-stage residuals in the second-stage regression. Since this statistic is insignificant, the null hypothesis that community-reported involvement measure does not suffer from endogeneity is accepted. Taken together, these results indicate that the significance of the positive coefficient

[10] Further, in a two-stage linear model of community satisfaction, the instruments pass a Hansen J test for overidentification, while the linear model yields similar results to the Tobit in all other respects.

on the involvement variable in the one-stage Tobit analysis is not due to response bias. Our results support the claim that participation raises client-community satisfaction.

5.3. Geographical clustering of NGOs

So far we have proceeded under the simplifying assumption that there can be only one NGO operating in each location or community. In this section, we explore the verisimilitude of this assumption and investigate another aspect of the allocative efficiency of the Ugandan NGO sector.

We have seen that Ugandan NGOs in general adopt a holistic approach towards meeting all the needs of the communities they serve. It follows that if NGOs allocate their activities optimally across locations, there should be no duplication: if one NGO is already providing services to one community, while another, similar community is receiving no services, it makes little sense for a second NGO to start providing the same services to the first community when it could have a greater impact on the welfare of the second.

To formalize this idea, let us suppose that NGOs face fixed transactions costs C within each of the locations they serve. Let us write the NGO's objective function as:

$$\max_{\{M_j\}} \sum_j V_j(M_j + M_{-j}) \text{ subject to } \sum_{j=1}^{N} M_j - I(M_j > 0)C = M \tag{5.1}$$

where M_{-j} denotes the level of public good provision already provided by other NGOs, and $I(M_j > 0)$ is an indicator function that takes value 1 if $M_j > 0$ – i.e., if there is an NGO intervening in community j – and 0 otherwise. We continue to assume that $V'' < 0$, i.e., that there are decreasing returns to NGO intervention. This implies that the marginal benefit from j's intervention falls with M_{-j}. Given that the transaction cost of intervention C is fixed, the 'bang-for-the-buck' is maximized if $M_{-j} = 0$. Other things being equal, each NGO will operate

in a community where no other NGO intervenes to avoid diluting the welfare gain from its intervention.

From this simple observation, we obtain two testable predictions: (1) that there should be at most one NGO operating in each community; and (2) that the satisfaction that client community members derive from one NGO's intervention decreases with the number of NGOs operating in that community.

The first two lines or panels in Table 11 indicate that only just over 10 percent of the NGOs included in our study were the sole NGO operator in the client communities involved in their assessment and that there were, on average, 3.8 NGOs working in each of the client communities where assessments were undertaken. These figures suggest that hypothesis (1) is not supported and that there is excessive geographical concentration of NGO activity in Ugandan. However, before accepting this as our conclusion we need to eliminate a number of alternative explanations.

First, geographical concentration might occur if many NGOs are too small to serve the needs of all the members of any particular community. Where one NGO is not sufficient, two or three may join forces to deliver an adequate level of service. From equation (5.1), we see that if the total resources M of an NGO are very limited, the presence of fixed transactions costs makes it optimal for the NGO to focus on a single location. Put differently, it is wasteful for an NGO that is unable to fulfil the needs of *one* community to disperse its efforts across several. Only if M is large enough is it optimal for the NGO to operate in several locations and, under these circumstances, it will be the sole NGO operating in each.[11] It follows from this reasoning that, on average, NGOs operating in *more than one* community should be large and thus should be sole NGO operating in most of these communities. In contrast, NGOs operating in only one community should be small. Consequently, they are more likely to intervene in communities

[11] To be entirely correct, the NGO would be the sole provider in all locations in which it operates except for the last one.

where other NGOs are also operating.

To test this conjecture, we divide our NGO sample into two groups: those that intervene alone and those that intervene in the same community as other NGOs. Sole NGO providers should, on average, operate in more districts than those that intervene with others. The result of this test is presented in the third panel of Table 11. Contrary to expectations, NGOs that are sole providers tend to operate in fewer districts, although the difference is not statistically significant.

Second, it may be that the specialized NGOs included in our sample, while in the minority, are confounding this analysis. Since specialization eliminates duplication of effort, efficiency need not be reduced when several specialized NGOs intervene in the same community. By the same reasoning, it may be efficient for specialized NGOs to operate in several communities even though, in each of them, they are not sole NGO. This situation would arise if, in each village, they fulfill the need in which they specialize.

This suggests a test as follows. Consider specialized and unspecialized NGOs. For unspecialized NGOs, our earlier conclusion still applies: we expect NGOs intervening in several communities to intervene alone, while those intervening in the same location as other NGOs should only intervene in one community. In contrast, for specialized NGOs nothing precludes them from intervening in multiple communities even if other NGOs also operate there. It follows that we can compare NGOs intervening in the same community as other NGOs: efficiency requires that unspecialized NGOs do not operate in another community; efficiency does not impose any such restriction on specialized NGOs.

A careful review of the descriptions that the NGOs gave of their own activities led us to conclude that around 18 percent can reasonably be characterized as specialists. As the final panel of Table 11 shows, such specialists are no less likely to be found among the sole NGO

operators than among those who are not sole operators, and appear to be operating in fewer rather than more districts than unspecialized NGOs. The difference is statistically significant at the 10% level.

To summarize, the observed pattern of geographical NGO clustering cannot be explained either by NGO specialization or by difference in NGO size. Such geographical clustering is thus unlikely to maximize efficiency if community-specific transactions costs are present.

There remains the possibility that our assumption regarding transactions costs is incorrect. It is conceivable that there are unobserved complementarities between NGO interventions. Such complementarities could arise, for instance, if NGOs pool resources so as to economize on transactions costs C – e.g., by sharing of staff time and vehicles, sharing of organizational structures, joint meetings (Fafchamps and Owens 2005). In the presence of such externalities, geographical clustering might be optimal.

To test this possibility, we note that in this case, our prediction (2) fails: with complementarities between NGOs, the satisfaction of client community members should increase with the number of NGOs operating in that community. To test this hypothesis, we augment the Tobit regressions presented in Table 9 with one additional right hand side variable, the number of other NGOs operating in the community that conducted the assessment. The results are presented in Table 12. The new regressor bears a negative and significant coefficient in the model for the full sample of client communities, while causing only marginal changes in the magnitude and significance of the coefficients on all the other variables of interest. This finding fails to support the idea that NGO clustering is caused by complementarities; it rather supports our earlier hypothesis that clustering results in duplication of effort.

6. Concluding Remarks

Employing original survey data gathered in Uganda, we have examined whether satisfaction with NGO activities varies systematically with remoteness and prosperity. To our knowledge, this is the first attempt to assess NGO client-community satisfaction and NGO motivations by applying statistical methods to data from a large representative survey.

Using a simple model of NGO service delivery, we argued that satisfaction with NGO intervention should be lower in prosperous communities if NGOs seek to equalize welfare across rich and poor communities. We also argued that higher delivery costs will cause NGOs to allocate fewer resources – and hence generate less satisfaction – in more remote communities.

Both model predictions are supported by our analysis of rural client-community satisfaction with NGOs. However, Kampala is different. Here, our basic model has no predictive power. This is probably because remoteness is less of an issue in the capital city, where all communities can be accessed with relative ease. There, residents in one neighborhood can access service providers located in others and the prosperity of any particular neighborhood is less important in determining the geographical distribution of NGO activity as a result.

We also investigate whether satisfaction with NGOs depends on whether the NGOs adopt a participatory approach. Our results suggest that this is indeed the case. Both a permanent NGO presence in the client-community and community involvement in NGO decision-making raise client community satisfaction. Further, it seems that some but not all of the relative dissatisfaction of remote communities with NGOs reflects the tendency of NGOs to maintain permanent presences only in less remote and more prosperous communities, a finding that is in line with that of (Sharma and Zeller 1999) regarding micro-credit in Bangladesh. It remains to be seen whether the positive relationship between participation and satisfaction is due to a direct effect of participation on satisfaction, to a better resulting match between NGO activities

and community needs, or to the payment of per diems to participating community members.

In the last section of our empirical analysis, we examined the effects of geographical clustering in NGO interventions. Within the client communities included in this study there is considerable evidence of geographical concentration of NGO interventions. Combined analysis of the data provided by the client communities and the NGOs themselves indicated that the clustering is due neither to their small size nor to NGO specialization – which is largely lacking. Regression analysis further indicated that NGO clustering reduces client community satisfaction. Taken together, these results suggest that there is extensive duplication of NGO effort at the local level.

The results presented here suffer from a number of shortcomings. First, as we have already discussed, measurement problems preclude a combined analysis of client-community satisfaction with NGO outputs, inputs, and costs. Second and most importantly given our objective, our analysis is based on data collected only from communities in which NGOs are active. In Uganda there are likely to be a large number of communities that receive no services from NGOs. Given our findings that NGOs generate less satisfaction in more isolated communities, in part because they are less likely to maintain a permanent presence in such communities, it seems reasonable to surmise that the most isolated and needy communities in Uganda may be entirely beyond the reach of the nation's NGOs and hence excluded from our sample. This has implications for the way is which we should view our finding that NGOs allocate their interventions so as to redress the welfare imbalance between rich and poor communities. Data of the kind employed by Fruttero and Gauri (2005) when working on Bangladesh is necessary to ascertain whether NGOs target or avoid the most needy communities in a country. Ideally one would combine both approaches, provided the necessary data are available. This is left for future research.

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Table 1. Client community evaluations by district

District	NGOs selected	Community evaluations
Kampala	99	66
Arua	6	5
Busia	6	6
Iganga	25	27
Jinja	19	18
Kabale	9	10
Kasese	40	38
Kibale	4	5
Kotido	3	5
Lira	12	12
Luwero	7	10
Mbale	25	23
Mbarara	13	14
Mukono	19	20
Rakai	8	9
Total	295	268

Table 2. Client-community evaluations of NGOs

	Full sample		Rural		Kampala	
	Means and proportions	Obs.	Means and proportions	Obs.	Means and proportions	Obs.
Community satisfaction						
Willingness to pay (mean proportion of beans)	60.14%	256	62.29%	196	53.10%	60
NGO staff and representative motivations and performance						
quick to respond (1 to 5)	3.76	259	3.82	201	3.59	58
good at what they do (1 to 5)	4.33	259	4.36	200	4.24	59
self- rather than community-serving (1 to 5)	1.82	259	1.82	201	1.83	58
Community participation						
NGO asks the community about activities *ex ante*	55.38%	260	53.27%	199	62.30%	61
NGO asks the community for feedback *ex post*	57.14%	259	55.78%	199	61.67%	60
NGO has permanent structure in community	62.45%	261	64.18%	201	56.67%	60

Table 3. Commonalities between evaluation variables

	Pairwise correlations			OLS regression
	Willingness to pay	Quick to respond	Good at what they do	Willingness to pay
Quick to respond	0.1211 *			-0.0127
				(0.019)
Good at what they do	0.2355 ***	0.4864 ***		0.0725 ***
				(0.027)
Self-serving	-0.2472 ***	-0.3700 ***	-0.3565 ***	-0.0532 ***
				(0.018)
Constant				0.4314 ***
				(0.125)
R-sq				0.0910
Obs.				251

Factor analysis

(Iterated principle factors; 3 factors retained)

Factor	Eigenvalue	Difference	Proportion	Cumulative
1	1.4557	1.1800	0.7907	0.7907
2	0.2757	0.1658	0.1497	0.9404
3	0.1098	0.1100	0.0597	1.0001
4	-0.0002	.	-0.0001	1.0000

Factor Loadings

	1	2	3	Uniqueness
Willingness to pay	0.3455	-0.4087	0.0624	0.7097
Quick to respond	0.7129	0.2886	-0.0626	0.4046
Good at what they do	0.6986	0.0368	0.2235	0.4607
Self-serving	-0.5832	0.1548	0.2282	0.5838

Table 4. Remoteness and initial endowments of client-communities

	Full sample		Rural		Kampala	
	Means and proportions	Obs.	Means and proportions	Obs.	Means and proportions	Obs.
Distance to…						
district head quarters	9.73	264	11.17	198	5.41	66
nearest hospital	7.60	264	8.75	198	4.16	66
LC3	2.89	262	2.70	196	3.44	66
nearest tarred road	10.09	256	13.28	191	0.70	65
Proportion of families with…						
iron roofs	74.96%	263	69.88%	198	90.43%	65
cement floors	48.02%	263	41.46%	197	67.62%	66
TVs	21.77%	259	19.58%	193	28.17%	66
radio	73.00%	268	71.05%	202	79.00%	66
bicycle	36.99%	267	45.79%	201	10.18%	66
car	7.97%	264	8.24%	198	7.13%	66
at least one member in paid employment	18.34%	263	18.81%	197	16.92%	66
no land	59.91%	262	54.69%	196	75.42%	66

Table 5. Client-community representatives and group characteristics

	Representatives		Groups			
	Means and proportions	Obs.	Means and proportions	Obs.	Minimum	Maximum
Demographic characteristics						
Age in years	37.59	2523	37.43	263	17.90	65.00
Age < 25	12.59%	2566	12.81%	265	0.00%	100.00%
Age 25 - 40	45.17%	2566	45.55%	265	0.00%	100.00%
Age 40 - 55	30.87%	2566	30.42%	265	0.00%	100.00%
Age > 55	9.87%	2523	9.77%	263	0.00%	100.00%
Females	42.66%	2562	42.58%	265	0.00%	100.00%
Married	76.33%	2547	75.60%	264	0.00%	100.00%
Religion						
Catholic	31.81%	2562	32.44%	265	0.00%	100.00%
Protestant	36.18%	2562	35.65%	265	0.00%	100.00%
Moslim	20.30%	2562	19.96%	265	0.00%	100.00%
Penetcostal	7.22%	2562	7.38%	265	0.00%	100.00%
Other	4.49%	2562				
Education						
None	6.03%	2504				
Primary education only	31.99%	2504	31.69%	264	0.00%	100.00%
Secondary education	41.25%	2504	41.57%	264	0.00%	90.91%
Tertiary education	20.73%	2504	20.96%	264	0.00%	90.00%
Occupation						
farmer/fisherman	30.10%	2409				
public servants	19.88%	2409				
self-employed	32.21%	2409				
other employed	17.80%	2409				
inactive	16.02%	2409				
Link with NGO being evaluated						
Staff of NGO	2.26%	2474	2.38%	259	0.00%	75.00%
Member or direct beneficiary of NGO	38.80%	2474	37.71%	259	0.00%	100.00%
At least one member of staff of NGO present			13.96%	265	0.00%	100.00%
At least one member or beneficiary of NGO present			75.47%	265	0.00%	100.00%
Size of SGI group			9.67	265	4.00	33.00

Table 6. Tobit analysis of NGO motivations (reduced form model)

	Willingness to pay measure of client-community satisfaction with NGO		
	All	**Rural**	**Kampala**
Remoteness	-0.1157	-0.1321	0.0966
	[0.0477]**	[0.0506]***	[0.2496]
Durable assets	-0.1136	-0.1728	0.0281
	[0.0523]**	[0.0599]***	[0.1340]
Employment	0.0065	0.0087	-0.0012
	[0.0022]***	[0.0025]***	[0.0058]
Landlessness	-0.0008	-0.0016	0.0012
	[0.0010]	[0.0012]	[0.0015]
Credit constrained (dummy)	-0.2472	-0.3580	-0.1450
	[0.1291]*	[0.1718]**	[0.1879]
Kampala (dummy)	-0.0420		
	[0.0878]		
Client-com. Group size	-0.0010	0.0031	-0.0174
	[0.0107]	[0.0113]	[0.0371]
Proportion women	-0.4423	-0.4396	-0.7288
	[0.1911]**	[0.2167]**	[0.4886]
Mean age	0.0097	0.0053	0.0209
	[0.0056]*	[0.0064]	[0.0116]*
Prop. no secondary school	0.0441	-0.0388	0.3005
	[0.1451]	[0.1596]	[0.3525]
Proportion Catholic	0.1694	0.2401	-0.0942
	[0.1723]	[0.1920]	[0.4065]
Proportion Muslim	-0.0833	0.0131	-0.4889
	[0.1823]	[0.2025]	[0.4129]
Proportion Pentecostal	0.0058	-0.1472	0.4850
	[0.3268]	[0.3610]	[0.8241]
Prop. connected to NGO	0.0608	0.0690	0.1925
	[0.1050]	[0.1168]	[0.2663]
Proportion NGO staff	0.0671	-0.2057	1.2576
	[0.4204]	[0.4497]	[1.3077]
Constant	0.6032	0.8309	0.3512
	[0.3023]**	[0.3491]**	[0.7285]
Observations	211	159	52
Sig. of regression (p-value)	0.0149	0.0073	0.6517

Robust standard errors in brackets

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 7. Ordered probit analysis of community participation

	Pariticipation score (0 to 2)		
	All	**Rural**	**Kampala**
Remoteness	0.0783	0.1702	-2.8558
	[0.1198]	[0.1306]	[0.9622]***
Durable assets	-0.0667	0.003	-0.4668
	[0.1410]	[0.1519]	[0.3967]
Employment	-0.0012	0.0004	-0.0196
	[0.0054]	[0.0057]	[0.0180]
Landlessness	-0.0026	-0.0038	0.0003
	[0.0025]	[0.0029]	[0.0049]
Kampala (dummy)	0.3798		
	[0.2184]*		
Observations	211	159	52
Sig. of regression (p-value)	0.3586	0.2201	0.0230

Marginal effects of continuous variables reported

Effect of descrete change (0 to 1) in Kampala dummy reported

Robust standard errors in brackets

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 8. Probit analysis of NGO accessibility/location

	NGO has a permanent presence in community		
	All	**Rural**	**Kampala**
Remoteness	-0.0864	-0.0641	-0.4953
	[0.0432]**	[0.0435]	[0.2710]*
Durable assets	0.1339	0.1661	-0.0364
	[0.0541]**	[0.0601]***	[0.1340]
Employment	-0.0019	-0.0027	0.0041
	[0.0020]	[0.0021]	[0.0063]
Landlessness	-0.0009	-0.0009	-0.0011
	[0.0010]	[0.0012]	[0.0018]
Kampala (dummy)	-0.1859		
	[0.0856]**		
Observations	211	159	52
Sig. of regression (p-value)	0.0039	0.0039	0.4569

Marginal effects of continuous variables reported

Effect of descrete change (0 to 1) in Kampala dummy reported

Robust standard errors in brackets

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 9. Tobit analysis of NGO motivations (full model)

	Willingness to pay measure of client-community satisfaction with NGO		
	All	**Rural**	**Kampala**
Permanent presence	0.1293	0.1755	0.0471
	[0.0692]*	[0.0804]**	[0.1374]
Involvement	0.0849	0.1558	-0.1651
	[0.0429]**	[0.0496]***	[0.0937]*
Remoteness	-0.1038	-0.1237	-0.0566
	[0.0471]**	[0.0482]**	[0.2612]
Durable assets	-0.1213	-0.1874	0.0193
	[0.0521]**	[0.0584]***	[0.1329]
Employment	0.0069	0.0094	-0.0032
	[0.0022]***	[0.0024]***	[0.0059]
Landlessness	-0.0007	-0.0013	0.0016
	[0.0009]	[0.0012]	[0.0015]
Credit constrained (dummy)	-0.2571	-0.2992	-0.1181
	[0.1289]*	[0.1662]*	[0.1920]
Kampala (dummy)	-0.0484		
	[0.0879]		
Client-com. Group size	-0.0021	-0.0010	-0.0061
	[0.0106]	[0.0108]	[0.0395]
Proportion women	-0.4431	-0.4675	-0.7245
	[0.1878]**	[0.2070]**	[0.4876]
Mean age	0.0094	0.0050	0.0264
	[0.0055]*	[0.0061]	[0.0118]**
Prop. no secondary school	0.0513	-0.0050	0.2580
	[0.1425]	[0.1530]	[0.3614]
Proportion Catholic	0.2146	0.3005	-0.2349
	[0.1702]	[0.1844]	[0.4087]
Proportion Muslim	-0.1178	-0.0110	-0.2672
	[0.1797]	[0.1941]	[0.4219]
Proportion Pentecostal	-0.1166	-0.4025	0.3343
	[0.3236]	[0.3496]	[0.8156]
Prop. connected to NGO	-0.1005	-0.1958	0.3951
	[0.1222]	[0.1336]	[0.3048]
Proportion NGO staff	0.0084	-0.3767	0.9835
	[0.4138]	[0.4315]	[1.3188]
Constant	0.5012	0.6182	0.0968
	[0.2994]*	[0.3367]*	[0.7532]
Observations	211	159	52
Sig. of regression (p-value)	0.0031	0.0001	0.5508

Robust standard errors in brackets

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 10. Analysis of response bias in community involvement in NGO decision making

	Willingness to pay (single stage)	Involvement (1st stage)	Willingness to pay (2nd stage)
Permanent presence	0.2034	0.1566	0.1769
	[0.0813]**	[0.1337]	[0.0825]**
Involvement	0.0862		0.3467
	[0.0494]*		[0.1924]*
Remoteness	-0.1122	-0.0704	-0.1054
	[0.0519]**	[0.0743]	[0.0517]**
Durable assets	-0.1341	-0.0402	-0.1271
	[0.0628]**	[0.0980]	[0.0624]**
Employment	0.0062	-0.0036	0.0076
	[0.0026]**	[0.0040]	[0.0028]***
Landlessness	-0.0012	-0.0014	-0.0011
	[0.0011]	[0.0019]	[0.0011]
Credit constrained (dummy)	-0.1628	-0.3824	-0.0496
	[0.1504]	[0.2919]	[0.1682]
Kampala (dummy)	0.0205	0.2809	-0.0550
	[0.1088]	[0.1684]*	[0.1205]
Client-com. Group size	-0.0086	0.0082	-0.0122
	[0.0123]	[0.0147]	[0.0125]
Proportion women	-0.4495	-0.0034	-0.4203
	[0.2104]**	[0.3910]	[0.2092]**
Mean age	0.0072	-0.0037	0.0078
	[0.0062]	[0.0096]	[0.0062]
Prop. no secondary school	0.1299	0.1184	0.0999
	[0.1696]	[0.2526]	[0.1694]
Proportion Catholic	0.1186	-0.2260	0.1665
	[0.1963]	[0.2818]	[0.1975]
Proportion Muslim	-0.0698	0.2304	-0.1554
	[0.2164]	[0.2996]	[0.2237]
Proportion Pentecostal	-0.4090	0.9188	-0.6708
	[0.3587]	[0.7263]	[0.4026]*
Prop. connected to NGO	-0.0790	1.5002	-0.4752
	[0.1461]	[0.1776]***	[0.3184]
Proportion NGO staff	0.7993	1.3435	0.4042
	[0.9693]	[0.8881]	[1.0053]
NGO: ex ante workshops		0.4363	
		[0.1572]***	
NGO: ex post evaluation		-0.3279	
		[0.2612]	
NGO: International		0.2439	
		[0.1671]	
Residuals from 1st stage			-0.2803
			[0.1997]
Constant	0.5492	0.8456	0.3290
	[0.3392]	[0.5312]	[0.3708]
Observations	160	160	160
Sig. of regression (p-value)	0.0209	0.0001	0.0177

Robust standard errors in brackets

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Table 11. Sole NGO operator status and activity specialization

	Means and proportions	P-value
Proportion of NGOs that are sole operators in the client community involved in their assessment	11.54%	
Mean number of NGOs operating in surveyed client communities (SCC)	3.81	
Number of districts covered by NGO		
All NGOs	5.86	
NGOs that are sole operators in SCC	4.90	0.2930 [1]
NGOs that are not sole operators in SCC	5.98	
Controlling for specialized NGOs		
Number of districts covered by Unspecialized NGO		
All unspecialized NGOs	5.86	
Unspecialized NGOs that are sole operators in SCC	4.74	0.2755 [1]
Unspecialized NGOs that are not sole operators in SCC	6.25	
Proportion of specialized NGOs		
Among all NGOs	17.79%	
Among NGOs that are sole operators in SCC	26.67%	0.1790 [2]
Among NGOs that are not sole operators in SCC	16.73%	
Number of districts covered by NGO		
Unspecialized NGOs that are not sole operators in SCC	6.25	0.0928 [1]
Specialized NGOs that are not sole operators in SCC	4.57	

Notes: [1] One-tailed t-test with variances not assumed equal; [2] Chi^2 test

Table 12. Controlling for multiple NGOs in single client communities in the Tobit analysis of NGO motivations

	Willingness to pay measure of client-community satisfaction with NGO		
	All	**Rural**	**Kampala**
Number of other NGOs in community	-0.0310	-0.0260	-0.0347
	[0.0175]*	[0.0206]	[0.0308]
Permanent presence	0.1382	0.1863	0.0535
	[0.0687]**	[0.0802]**	[0.1355]
Involvement	0.1076	0.1699	-0.1304
	[0.0445]**	[0.0506]***	[0.0968]
Remoteness	-0.0956	-0.1146	-0.1142
	[0.0467]**	[0.0483]**	[0.2625]
Durable assets	-0.1144	-0.1816	0.0461
	[0.0517]**	[0.0581]***	[0.1332]
Employment	0.0069	0.0094	-0.0037
	[0.0021]***	[0.0024]***	[0.0058]
Landlessness	-0.0008	-0.0014	0.0014
	[0.0009]	[0.0011]	[0.0015]
Credit constrained (dummy)	-0.2478	-0.2908	-0.1232
	[0.1281]*	[0.1656]*	[0.1895]
Kampala (dummy)	-0.0067		
	[0.0901]		
Client-com. Group size	-0.0038	-0.0025	-0.0069
	[0.0105]	[0.0108]	[0.0390]
Proportion women	-0.4368	-0.4612	-0.6767
	[0.1856]**	[0.2051]**	[0.4820]
Mean age	0.0092	0.0046	0.0253
	[0.0054]*	[0.0061]	[0.0117]**
Prop. no secondary school	0.0563	0.0027	0.2370
	[0.1410]	[0.1519]	[0.3564]
Proportion Catholic	0.2371	0.3207	-0.2210
	[0.1689]	[0.1837]*	[0.4025]
Proportion Muslim	-0.0838	0.0204	-0.2399
	[0.1787]	[0.1941]	[0.4163]
Proportion Pentecostal	-0.1919	-0.4218	-0.1188
	[0.3226]	[0.3468]	[0.8974]
Prop. connected to NGO	-0.1108	-0.2021	0.3477
	[0.1212]	[0.1327]	[0.3043]
Proportion NGO staff	0.0738	-0.3192	1.3661
	[0.4110]	[0.4301]	[1.3512]
Constant	0.5620	0.6702	0.2495
	[0.2984]	[0.3370]**	[0.7535]
Observations	211	159	52
Sig. of regression (p-value)	0.0018	0.0001	0.5312

Robust standard errors in brackets

* significant at 10% level; ** significant at 5% level; *** significant at 1% level

Figure 1. Number of districts covered by each NGO

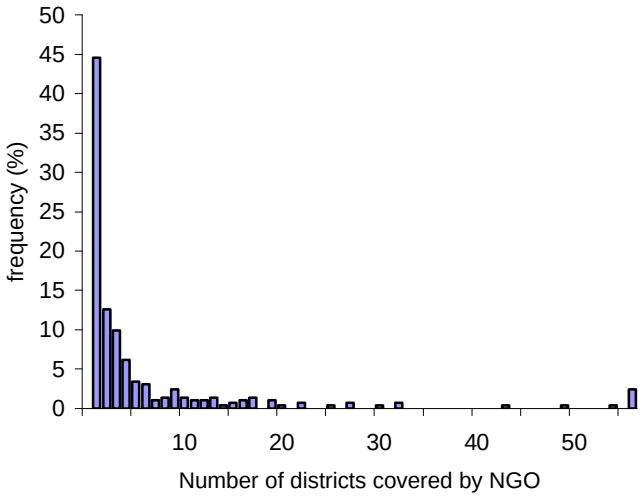


Figure 2. Willingness to pay measure of community satisfaction

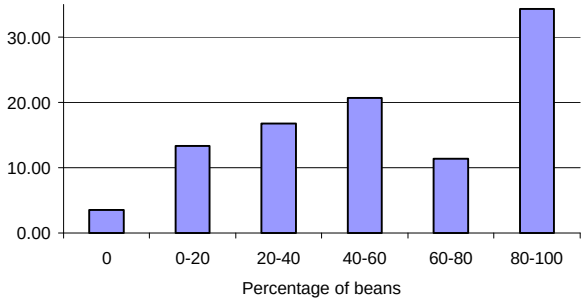
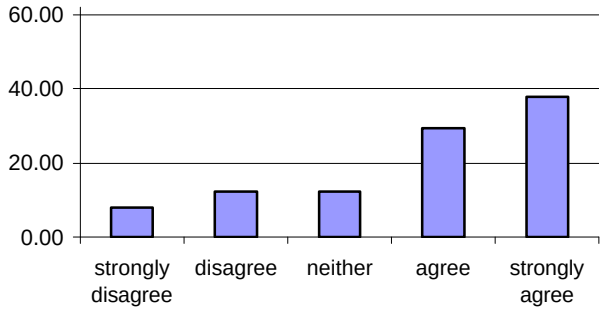
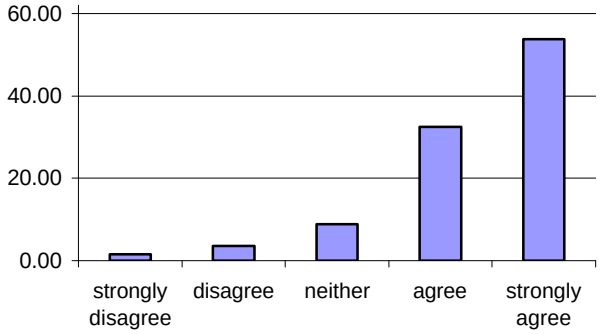


Figure 3. Statement-based measures of community satisfaction

[NGO] is always quick to respond when inhabitants of this parish or the parish as a whole ask for help



[NGO] representatives are good at what they do



[NGO] exists to serve the purposes of its own staff rather than to help us