I. Introduction

Community infrastructure in many developing countries is a crucial but lacking public good constraining local economic development. Donor agencies seeking to invest in this infrastructure are increasingly incorporating elements of community engagement in the investment process, hoping to make these funds more responsive to community needs, improve their targeting, and strengthen the communities’ ability to maintain this infrastructure and to initiate further community development. The Kapit bisig Laban sa Kahirapan – Comprehensive and Integrated Delivery of Social Services (KALAHI-CIDSS, or K-C) program initiated by the Department of Social Welfare and Development (DSWD) of the Philippines with the support of the World Bank has built on these principles in providing grants to 200 municipalities and more than 4,500 barangay (villages) over the past 7 years. Now, with additional funding from MCC and the World Bank, the K-C program will be expanded dramatically, covering approximately 200 more municipalities over the next 5 years.

The impact evaluation of MCC’s K-C project will serve both accountability and learning roles. MCC’s pre-investment economic analysis suggested that the $120 million investment in the K-C project is expected to generate more than $150 million in benefits over the next 20 years for thousands of Filipino households. On the accountability side, IPA will provide a rigorous, third-party assessment of whether these substantial and dispersed benefits have indeed materialized (or whether the benefits that have accrued by year 5 are consistent with the ex ante ERR model over 20 years). Regarding learning, community-driven development (CDD) is a relatively new approach to project-based aid for the MCC, which has thus far had its greatest success with projects that had detailed designs vetted by technical experts early in their lifecycles. CDD involves a certain degree of uncertainty, as community-based decision-making may delay the determination of the exact nature of investments and puts them in non-technical hands (at least to some degree). In doing so, therefore, it becomes even more crucial for the MCC to learn whether these decisions were indeed cost-effective in improving these populations’ material well-being. The evaluation will also answer important questions about whether CDD programs are effective at delivering benefits to disadvantaged groups (such as women, the poor and the elderly) and at integrating women’s interests into local infrastructure decisions, and whether they improve the communities’ long-term ability to initiate and sustain collective investments.
II. Key Features of KALAHI-CIDSS Evaluation Design

A. Randomization

Like many foreign aid projects and national government investments, a complex set of decisions typically drive the placement of CDD programs across communities. Studying only the communities that participate in a CDD project is not likely to suffice for causal attribution in such a case. Even non-experimental studies of such programs that do include comparison groups who do not participate in the project face substantial bias when comparing treatment communities with those not receiving programs. Controlling for community characteristics that do not vary over time via community fixed effects estimation in a panel setting cannot control for factors that vary over time and may be correlated with program placement. PSM can improve the statistical similarity of treatment and comparison communities, but only to the extent that we can actually observe the factors related to program placement that may affect the outcomes. Regression discontinuity designs (RDDs) can yield statistically valid estimates, but our confidence in their results can be limited to the vicinity around the crucial threshold.

Random assignment of treatment status offers the highest likelihood of generating unbiased estimates of a program’s causal impact. MCC, the GoP and the World Bank recognized this advantage in determining that the next phase of the K-C program will be evaluated using random assignment. The K-C evaluation will constitute the largest randomized evaluation of a CDD program that includes at least three full years of sub-project implementation and multiple mid-term survey waves.

The effectiveness of random assignment can be compromised by the fungibility of national, provincial, and municipal resources by creating spillover effects. For example, if provincial governments increase revenues allocated to control municipalities for non-K-C related investments, these could confound the impacts detected by the evaluation. IPA’s team will assess the degree to which K-C grants represent increases in total budget allocation at the municipal and barangay levels by examining government budgets and responses in community surveys. Non-compliance with the group assignment is also always a threat to a randomized evaluation. IPA’s researchers can adeptly implement instrumental variables techniques to adjust for potential non-compliance and generate both intent to treat (ITT) and treatment on the treated (TOT) estimates. Indeed, given that partial non-compliance is likely, implementing local instrumental variables (LIV) techniques recently popularized by James Heckman and Edward Vytlacil (for an example of such work in a CDD context, see Arcand and Bassole, 2009) will allow the IPA team to assess the potential for heterogeneity in the treatment effect that can be attributed to K-C.

B. Ensuring optimal sampling

Because the randomization will occur at the municipality level and the selection of barangays that receive sub-grants will be competitive and thus non-random, creating an efficient sampling strategy will likely be challenging. Prior to the project implementation, one cannot sample only from barangay that actually receive sub-grants. As a result, a large share of the sample may be devoted to households in barangay which do not receive sub-grants. While this may be useful if there are spillover effects across barangay within treatment municipalities, it is also likely to attenuate the impact estimates (at reasonable sample sizes). One possibility would be to use existing data on the first phase of K-C to predict which barangay are more likely to receive sub-grants and to weight the
sample to include a larger share of households from these barangay (one would similarly overweight comparable barangay in the control group that would be more likely receive sub-grants if they were in the treatment group). Such an exercise could be based on existing survey data and administrative records from past project implementation, and could be formally incorporated into the barangay sampling weights.

C. Collaboration and oversight in survey implementation

Actually collecting this data will be the responsibility of the organization hired by MCA-Philippines to conduct the survey waves. IPA will work collaboratively with MCC, MCA-P, and the survey organization to ensure data collection proceeds as smoothly and effectively as possible. IPA will provide oversight and data quality checks for all of the survey rounds, including back-checks of 2% of households and extensive on-the-ground presence to identify and address any issues expeditiously. IPA’s team will also conduct robust data validation after entry is complete and work with the survey firm to ensure the data is as clean as possible. IPA will generate a complete, well-documented dataset for each survey round that incorporates any additional variables used in each round of analysis.

D. Key outcomes from rural infrastructure investments

K-C sub-grants are primarily used for small scale infrastructure. These could generate income gains in two ways. First, and most importantly, the infrastructure itself can have economic returns that are dispersed throughout the communities benefitting from it. These returns could take the form of future earnings for better educated and/or healthier children, more immediate income gains from greater access to markets and inputs for farmers as a result of road improvements, reduced costs for obtaining services such as water supplies, or many other forms. CDD studies to date have largely focused on human capital gains and per capita consumption changes. Because MCC focuses on economic growth defined as gains in local incomes as its core outcome, IPA will incorporate a comprehensive income module into the evaluation. This module will cover income derived from a range of sources and over various timeframes, ensuring that the varied channels for income growth will be covered with a high degree of precision. Sub-grants could additionally generate income as those employed could benefit from the income they receive while working on the project.

At the same time, we plan to also collect detailed information on per capita consumption, as it may be subject to less variability, reporting errors and biases, and is more closely comparable to official poverty statistics and MCC’s own Beneficiary Analysis. IPA will integrate a consumption module into the survey questionnaires, from which a consumption aggregate can be established similarly to those routinely used to calculate poverty statistics. Such consumption data can then be compared to the $1.25, $2, and $4 per person per day lines to estimate changes in poverty rates and transitions into and out of poverty. This data may also be particularly important for disaggregating impacts across sub-populations, since the measurement error in income data is likely to be correlated with occupation, education levels and other demographics. For example, farmers and self-employed often keep poor records, which makes it difficult to distinguish revenues from profit. This not only increases the average measurement error, but also does so dependent on the respondents’ occupation, which could bias our estimates of heterogeneous treatment effects.

It will also be important to carefully measure the changes in income for individuals directly employed in construction and operation of the infrastructure supported by the sub-grants, separate for males and females. In contrast to projects executed by external contractors, community-based projects tend to
hire labor from the local labour market. As many of the works will require manual labor, it is expected that the poor, whose labor is their main asset, will benefit. There may also be harmful effects, however. Coercion from the community could result in informal taxation in the form of labor, which could actually hurt the poor (Olken 2011). We plan to collect information on the labor inputs villagers provide directly as part of infrastructure construction and operation, as well as the compensation they receive.

Naturally, many of the benefits from K-C sub-grants will be specific to the type of infrastructure each barangay constructs. A large share of the sub-grant funds issued to date as part of K-C have been used for road improvements. These improvements can reduce travel time and costs from home to work and improve access to markets. To measure these benefits, we will collect information from households on the time required to undertake some key daily activities that may be affected by transport cost reductions, such as travelling to work, going to school, etc. We will investigate the quality of roads that are used for these activities, the frequency with which they are used, and travel times and direct costs. Increased utilization and reduced travel times and costs would both be indicators of economic benefits resulting from roads improvement.

Many sub-grants are also likely to be devoted to installing or upgrading water systems. Such systems could potentially have important health benefits, as well as providing some time and cost savings to households that were previously obtaining water from distant or costly sources. IPA will specifically incorporate questions on water sources and costs, as well as the incidence of water borne diseases, such as diarrhoea. More in-depth analysis would include tests of water quality, which we recommend, both at common sources and in the household. Access to an improved water source does not lead to improved health outcomes if the water is not treated properly all the way from the source to the time it is used. An analysis of water quality could help to identify where the problem lies if we find no health benefits of water investments, and guide future technical support to communities to overcome these problems.

Historically, a sizable share of the K-C funds has also been used to finance improvements in health and education facilities. We will investigate the impacts of these investments by asking households about their utilization of health and education services, which would then linked to a community-level inventory of health and education services in the community questionnaire. In the household and community surveys, we will also collect subjective information on the quality and level of service provision of providers, a tool which has been used previously in the Philippines (World Bank 2001).

We will investigate the effect of educational investments on child learning by including simple cognitive tests for children in the 4-6 year old age range and mathematics and reading tests for children in the 10-12 year old age range. The former group is included to investigate the impact of investments in day care centers, while the latter is included to investigate the impact of investments in primary schools. We will aim to include tests that can be administered with minimal training of interviewers and that draw from previous experience in the Philippines (Armecin et al 2006).

In some cases, we expect to have to combine the information collected from the impact evaluation surveys with results from other studies to be able to conduct an economic rate of return analysis. For instance, the economic benefits from early childhood development or schooling will only manifest itself after the completion of this evaluation study. We will rely on other studies that have related gains in learning to labour market outcomes.
Community surveys will also be used to get a better picture on how infrastructure investments are distributed across the community. Some CDD skeptics argue that such projects may be subject to elite capture in which local elites may direct the process and use the grants to improve their own welfare. For infrastructure, they could guide the process toward investment in areas in which they live or near agricultural land they own, e.g., to improve the road in front of the village head’s house. We plan to investigate this process by including a qualitative geographical ranking of neighborhoods in each village in the community questionnaire which can be used to determine where the poor and non-poor residents live or farm. Such information can then be compared to the location of the K-C-supported infrastructure. Combining this qualitative information with quantitative data on infrastructure usage and income and consumption gains will allow the IPA team to create a compelling and comprehensive understanding of K-C’s impacts.

E. Heterogeneous Effects

MCC’s mission focuses on improving the well-being of the poor by generating economic growth, and the CDD approach is expected to give voice, agency, and ultimately material benefits to citizens who have typically been marginalized within their communities. At the same time, there remains continuing debate about the extent to which CDD actually successfully alters power dynamics within a community rather than reinforcing them (Labonne and Chase 2010, Gugerty and Kremer 2008). It will therefore be extremely important to identify any differential impacts of the K-C program on disadvantaged populations. Some characteristics such as poverty level, gender, and age can be easily used to assess these differential effects. These measures do not always capture the degree of social isolation and exclusion that community residents may experience. To better gauge these features, IPA’s team will integrate geographical and social mapping into its survey and analytical work. Geographic positioning systems (GPS) can be used to map households’ relative proximity to community centers and public services. A brief social network module can be incorporated into the household survey to identify relatively isolated residents and to track whether there are any impacts on interactions among community members.

F. The role of qualitative surveys and analysis

While quantitative surveys and behavioral measures can provide important answers as to the size of impact (or average treatment effect), a combination of qualitative and quantitative measurement strategies at all stages of research is a particularly strong strategy for measuring the impacts of CDD interventions and in particular, the impacts on wellbeing and social capital (Jones & Woolcock, 2007; Shaffer, Kanbur, Hang, & Aryeetey, 2008). Here, by qualitative fieldwork, we mean focus groups centered around open-ended, semi-structured questions and participatory impact assessment exercises such as ranking (Catley, Burns, Abebe, & Suji, 2008), as well as observation in the community. We envision four principal roles for qualitative fieldwork and analysis, which will be further developed in the design of the qualitative evaluation:

1. Identification and refinement of survey questions and indicators

Since relevant outcome measures vary by context and experience, qualitative research can help the research team to identify and refine survey questions and indicators. By asking open-ended questions during our qualitative research, such as “what do poverty and wellbeing mean in this context?” and “how does social capital manifest itself here?”, we can ensure that the attitudinal and behavioral
measures we develop for our large-scale survey are not only meaningful to the researchers, but also to those being interviewed (see, for example, Colletta & Cullen, 2000).

2. Identification of gender specific concerns and opportunities
We can also use qualitative research to identify gender specific concerns and opportunities and to distinguish which survey questions should be asked of male or female respondents or both. We can also take note of specific issues related to other potentially important cleavages in society, such as age and class. By speaking to women in groups rather than only individually, and specifically in women-only groups, women may feel more open to speak about complex gender power dynamics within villages and households, gender-based violence, and sense of empowerment, issues which can be both sensitive and too nuanced to accurately capture in surveys alone.

3. Interpretation of survey results
Qualitative research will also be useful in interpreting survey results. In surveys, respondents may easily tell researchers what they think they want to hear and, even if accurately reported, attitudes do not directly translate into actions. In a qualitative evaluation of a development intervention in Rwanda, King found that problems in the community were likely under-reported in survey interviews since respondents’ freedoms are significantly limited by the government. She similarly wondered, based on qualitative experience, about the survey finding that respondents’ networks were extremely limited; in practice, respondents showed at least some important networks in their communities and, accordingly to project staff, may have been exaggerating their lack of options in surveys in order to try to “get more” out of the project (King 2010). Learnings from in-depth qualitative focus groups may also help give meaning to contradictory findings. In previous research on the K-C, for example, Labonne and Chase (2010) find that some forms of social capital may be substitutes for others. And importantly, qualitative research allows space for beneficiaries to speak about the experience of the project through open-ended questions like “who gains the most from the project?” “Who loses out?” and “What is it like to live in this community?”

4. Insight into the project process and mechanisms that explain why impacts are occurring
Going beyond questions of effectiveness and looking at how and why interventions work (or not) enhances the relevance and utility of evaluations for practitioners and policymakers. Qualitative research can also help the research team examine if the project is unfolding according to theory (White, 2009). The main mechanism through which CDD projects aim to achieve their outcomes is the participatory process, but broad-based participation in CDD projects is often lacking (King, Samii, & Snilstveit, 2010, pp. 347, 360-343). Qualitative interviews, alongside survey work, can help determine if participation is significant and equitable. For instance, by pairing quantitative with qualitative work, Fearon, Humphreys and Weinstein (2009) find “speculative” support for the hypothesis that community-led democratic institutions improve organizational capacity and thus collective action. We anticipate pairing qualitative and quantitative methods similarly.

G. Integrating gender considerations into the evaluation
The MCC K-C project reflects the considerable attention paid during its design to ensuring that women play a greater role in community decision-making and realize a significant share of the benefits from the sub-grants. This evaluation will include key components that will assess the degree to which these important elements have materialized.

To understand the project’s impacts on women’s roles in community decision-making, IPA will devote specific attention during the qualitative evaluation and household surveys to the role women
have played in collective decision-making as part of the K-C sub-grant development process, as well as their roles in collective action on other unrelated issues. The qualitative evaluation will document the process of decision making in a subsample of K-C communities and the implementation of the infrastructure investments. This information will largely be collected directly from those involved in the projects, but much of it would also be gathered from individuals that were not directly involved. We will investigate whether the K-C project has an impact on village decision making that is not related to investments in community infrastructure, such as water management and village security arrangements. We will also assess whether the inclusionary practices promoted as part of K-C, such as promoting women’s participation, spill over to other types of community decision-making and organization. Collecting this information would take the form of self-reported responses during the qualitative evaluation and household surveys, as well as direct observation of women’s participation in structured community activities. The self-reported measures would include questions on both participation and perceptions of one’s influence on the process.

The RFQ includes a number of questions related to features of the project design that are intended to better suit the needs of women. For example, the use of female facilitators in communities could have a positive influence on inducing women’s participation. Similarly, organizing separate meetings for women could induce greater participation and influence. However, it is possible that the opposite effects could occur. Women could be more marginalized if their participation is separated from that of men, and consequently ignored. We believe these are important operational questions that warrant serious consideration. The best way to evaluate them would be to experiment within the 100 municipalities that are assigned to the treatment group. For instance, a random set of municipalities could be assigned male facilitators, while the remaining set would have female facilitators. A similar experiment could be devised to evaluate the impact of separate decision meetings for females. If such experimentation is still feasible given the current state of project designs, IPA would be excited to assist in designing appropriate experimental strategies to answer these key questions.

While women’s participation in community decision-making is an important intermediate outcome for the K-C project, MCC’s primary goal is to broadly raise the incomes and material well-being of local populations, including women. It will therefore be crucial to carefully estimate K-C’s impacts on women’s income generating opportunities and consumption levels. As a general rule, IPA plans to disaggregate all key impact estimates by gender. Many variables, such as income, time use, utilization of services, and health outcomes are primarily individual, and can thus be broken down by gender. As discussed previously, however, women’s material well-being is more likely to be reflected in individual-level consumption estimates. While conducting a comprehensive intra-household consumption module within each survey round is likely to be costly, there are a smaller subset of goods and services that are consumed at the individual level and that reflect intra-household power and allocation dynamics (for example, investments’ in girls schooling). IPA plans to use the baseline qualitative evaluation to identify such goods and services that are locally relevant and incorporate these into the household questionnaires. Combining these questions on time use, service utilization, human capital accumulation, individual income, and individual consumption proxies will allow IPA to robustly identify causal impacts on women’s well-being.

H. Understanding sustainability

One of the claims underlying CDD is that the participative nature of the process will lead to more sustainable outcomes. Buy-in by local stakeholders through their partial financing of projects as well as the participatory nature of community selection of projects is expected to lead to better
maintenance of infrastructure constructed under the aegis of a CDD program than what would obtain for similar infrastructure constructed under traditional top-down approaches. Unfortunately, there is very little hard evidence to back up this claim, and the K-C evaluation offers the opportunity of addressing this issue in a rigorous manner. In particular, community-level questionnaires will include a section focusing on the durability issue, while household questionnaires will include a section dealing with the participation by households in the upkeep of K-C-funded infrastructure as compared to other types of community infrastructure. The relatively long timeframe of this evaluation and the sequential nature of the K-C sub-grants should allow us to study the sustainability of such sub-grants (particularly the first rounds of sub-grants) with a good degree of confidence.

The sustainability of the infrastructure provided under K-C is also related to the existence of politically motivated conflict. Using a geo-referenced panel dataset on the occurrence of conflicts in 2003 and 2006 gathered from local newspapers that is matched with nationally representative household survey and budget data on all municipalities, Arcand, Bah and Labonne (2009) find that K-C leads to a decline in Moro Islamic Liberation Front (MILF)-related conflict events and to an increase in New People’s Army (NPA)-related events. Such violence could have important effects on the communities’ political perceptions of K-C and their subsequent maintenance of the infrastructure funded under it. Collection of conflict related data through the community questionnaires will allow the IPA team to assess the impact of the K-C on such conflict.

I. Communication and learning

Because IPA’s mission is learning what works in development and conveying results to policymakers and implementers worldwide, our team places high value on helping clients understand project impacts and opportunities for broader impact through scalability. IPA intends to learn from MCA-P and MCC in order to deliver an evaluation that meets their needs, and work with them to convey results to development professionals. The IPA team is well-positioned to address questions and concerns about the evaluation, and respond to changes in implementation that will inevitably happen in the field, with field staff in Manila and a network of researchers around the world. In addition, here we discuss key milestones in our communication and learning strategy in the first year of implementation. Further details on the communication and learning strategy for later years will be developed in collaboration with MCC and MCA-P during the evaluation’s implementation.

Ensuring that clients support and realistically understand expectations of an evaluation is a critical first step in conducting an evaluation. Thus, we propose a design workshop to be held after submission of the design report but before submission of the detailed evaluation plan. This meeting would take place in Manila with MCA-P, MCC, and other necessary stakeholders (e.g., Government of the Philippines, World Bank, project implementers), and would serve to clarify objectives of the evaluation and ensure that all parties agree on outcome measures and hypothesized pathways to poverty reduction. The workshop would also allow IPA to discuss evaluation logistics and procedures, drawing on our extensive survey experience in the country, and clarify roles and responsibilities for each of the key evaluation stakeholders.

A second meeting or workshop would take place after the submission of the detailed evaluation plan, which would reinforce the design discussion held in the previous workshop, and clearly lay out a timeline for the evaluation, and responsibilities of each of the evaluation stakeholders. This meeting might also include the survey firm or engineering firm, if selected, to solidify their roles in the evaluation.
Once the evaluation is underway, IPA proposes at least two additional milestones for communication and learning. We suggest a third key meeting during the survey pilot phase with the objective of confirming the program logic and expected benefits streams. Prior to this, MCA-P and MCC would have had the opportunity to make suggestions on the questionnaires, but this meeting will serve to emphasize the most important questions of the analysis, recognizing that the survey may not be able to accommodate all parties' questions, given budget constraints. This will also give MCA-P and MCC and opportunity to observe fieldwork and appreciate how respondents are reacting to questionnaires.

The final milestone we propose during the base period is a set of presentations in Manila and Washington DC highlighting results from the baseline survey and implementation experience to date. It is IPA's experience that it is critical to not allow too much time to lapse between survey work and presentation of results. Reactions from stakeholders about the findings can further inform the evaluation, and shape the second round survey experience. Also, maintaining support for and interest in evaluation is an ongoing process, and a simple but clear presentation of baseline statistics can serve to maintain momentum and enthusiasm for the evaluation.
References


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