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## Appendix

1. Plan to generate indices and intermediate variables

### **Introduction:**

This pre-analysis plan provides the methodologies and specifications to be employed in testing hypotheses related to the short term outputs and impacts of the the Kapit-bisig Laban sa Kahirapan-Comprehensive and Integrated Delivery of Social Services (Kalahi-CIDSS or KC) community-driven development (CDD) project in the Philippines. The baseline data was collected from April to July 2012 and the interim data to which this pre-analysis plan applies was collected from February to June 2014.

The interim report will be part of an impact evaluation of the KC project that aims to provide an independent assessment of the impact of KC generally, and specifically of the returns to the Millennium Challenge Corporation's (MCC) US\$120 million investment. Furthermore, the impact evaluation aims to contribute to broader research about the impacts of CDD programs.

## I. Overview of intervention

The Kalahi-CIDSS or KC is a community-driven development (CDD) project implemented by the Government of the Republic of the Philippines' (GRP) Department of Social Welfare and Development (DSWD) as a major poverty reduction initiative. At the provincial level, KC targets the poorest 48 provinces, out of a total of 81 provinces. KC aims to improve welfare in rural areas by targeting communities with a poverty incidence greater than the national average through small-scale, community-driven development subprojects (SP) aimed at addressing their most pressing needs.<sup>1</sup>

The first phase of KC, known as KC1, took place from 2003-2009 with the support of the International Bank for Reconstruction and Development – World Bank, providing roughly US\$100 million in lending, the GRP financing US\$31 million, and communities and local governments contributing US\$51 million in training and grants to 4,583 barangays (villages) in 183 municipalities across the country's 42 poorest provinces.

In 2011, KC was expanded, providing grants and technical support to 362 municipalities within the original 42 provinces served by KC and six new provinces. This phase of KC was financed with a renewed US\$59 million in loan funding from the World Bank and a US\$120 million grant from MCC. In addition, local governments (region, municipality and/or barangay) are required to contribute 30% of subproject costs. Because there was not enough money to fund all municipalities, the project was randomized and municipalities were selected via a lottery so that each municipality had an equal chance of being selected. This phase of KC is still ongoing and is the phase being evaluated. Each participating municipality is allocated approximately PHP 450,000 (about US\$11,250) times the number of barangays in the municipality, although not every barangay in participating municipalities ultimately get subprojects.

Teams composed of barangay resident volunteers develop proposals for infrastructure and services to meet poverty reduction goals. Proposals are then evaluated by individual municipalities. Representative teams from each barangay in the municipality vote for which subprojects are most deserving of funding; the funds are then designated to the barangays according to their ranking in the voting until the municipal allocation is used up.

In parallel, the KC program trains the communities and their local governments, both at the barangay and municipal level, in choosing, designing and implementing the subprojects. This is done through a five-stage program known as the KC Community Empowerment Activity Cycle (CEAC). The main stages of the process are: (1) Social preparation; (2) Subproject identification and conceptualization; (3) Subproject prioritization; (4) Subproject implementation; and (5) Transition. Further details on each stage can be found in the baseline report (Beatty et al. 2013).

Roughly one third of barangays receive subprojects each year, although some barangays may receive multiple subprojects and others none. Most subprojects are programmed to be implemented within six months, thus the stages of preparation, funding and implementation generally take nine to twelve months and are called a cycle. The same process is repeated over three one-year cycles, with cycles two and three having a condensed social preparation phase since communities have already become familiar with the project and process.

## II. Overview of the evaluation design

### A. Experimental design

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<sup>1</sup> Projects at the barangay level are called subprojects because they are part of the overarching KC 'project'.

In order to isolate KC's effects, a matched pairs randomized design was chosen, with municipalities as the unit of assignment. This design offers both causal identification and the needed statistical power at an acceptable cost.

## B. Sample

The sample frame of municipalities was determined by both program eligibility and the subset of municipalities that were not automatically participants or non-participants. At the municipal level, municipalities with 70% poverty incidence or above automatically received the project, and municipalities with below 33% poverty incidence automatically did not receive the project. The impact evaluation focuses on municipalities with poverty incidence between 33-69%.

A municipality was eligible to participate in the randomization if it had:

1. Between 33-69% poverty incidence
2. Located in a province in which guaranteed municipalities have not been allocated all of KC funding based on the 50% minus one rule<sup>2</sup>
3. Did not receive KC1 funding

From this sample frame of municipalities, the impact evaluation sample consists of 198 municipalities, spread over 26 provinces. The sample size was determined via power calculations and was expected to be large enough to be able to detect MCC's projected eight percent change in household income as well as effects on other variables<sup>3</sup>.

Municipalities were informed that they would be excluded from the program if the mayor or his/her representative was not present at the public lottery event at which treatment was assigned (described in further detail below). In practice, 23 municipalities out of the 313 invited to participate in the randomization were disqualified for not attending the public lotteries or because they declined to participate.

Within each municipality, one barangay was randomly sampled in which data collection activities (described below) have been carried out.

## C. Assignment of treatment

The 198 municipalities were paired using nearest neighbor matching within each province based on a composite measure of their poverty incidence, population size, land area and number of barangays.<sup>4</sup> Ninety nine pairs were formed. One member of each pair was then randomly assigned into treatment and one

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<sup>2</sup> As determined by DSWD, a province received funding for half of the municipalities in the province minus one municipality.

<sup>3</sup> The outcome variables considered in the sample size computation include: total expenditure per capita, family income per capita, distance from main water source, proportion with safe water source, proportion of children 6-17 years attending school and proportion of mothers in the labor force. Other household level and individual level outcome indicators also considered include: the proportion of households trusting others in the village, trusting local officials, attending village assembly, joining barangay development planning, having difficulty fetching water, located within 30 minutes of the post office, visiting a health professional, and located within 30 minutes of a school.

<sup>4</sup> Municipal poverty incidence was naturally included as this is a key variable in project eligibility. The number of barangays was used to help balance the pairings since this is the unit of intervention (i.e. grants are made at the barangay level). Population and municipality land area were included because they are factors in determining the Internal Revenue Allotment (IRA) of a municipality, which largely determines the financial resources available to the local government unit (LGU), and affects counterpart contributions.

member into control groups through public lotteries. A total of 12 municipal selection events took place in separate provinces (with municipalities from multiple provinces attending each event).

#### D. Replacements

Of the original 99 pairs selected for the impact evaluation sample, one pair was dropped, but we replaced it with another pair in a manner consistent with the randomized design and in advance of the baseline data collection. Thus, we were able to collect baseline data on 99 pairs. The baseline report provides additional details on the dropout pair and its replacement (Beatty et al. 2013, table 4.1).

As for compliance with the randomization, to date, there have been eight pairs that have not complied with the randomization. The eight non-compliant pairs were surveyed at baseline, and we will continue to track them in order to conduct intention-to-treat analysis. None of these pairs was included in the interim sample, by chance (ie, they were not randomly selected to be included), not by intentional omission. The reasons for non-compliance were: inability to raise counterpart funding (3 pairs), governance issues such as conflict (2 pairs), and controls in the pair convincing DSWD to allocate funding to them despite the fact that they were not randomly selected to receive funding (3 pairs).

### III. Overview of data sources

Data for the estimation of outcomes and impacts of KC comes from two data collection exercises, each involving several instruments:

#### A. Baseline data collection<sup>5</sup>: Administered April to July 2012

Household survey: Within each barangay, 30 households were randomly selected from among all households to comprise the household survey sample. For part of the survey questionnaire (questions relating to perceptions and empowerment), half of the 30 selected households were randomly assigned a male target respondent and half a female target respondent. All other parts of the survey could be answered by the principal respondent with the support of any other household member 15 years of age or above. A total of 5,940 households were surveyed across the 198 barangays.

Barangay survey: A barangay-level survey was conducted for each of the 198 barangays, with barangay captains as principal respondents.

Qualitative focus groups: Qualitative focus groups were conducted in a sub-sample of 24 municipalities (12 municipality pairs) from the study's 198 municipalities. The qualitative sample covered 12 provinces (one pair per province) spread over the three island groups of Luzon, the Visayas and Mindanao. For each barangay, there were three FGDs: one with male participants, one with female participants, and one with both male and female participants, for a total of 72 FGDs. Each group had an average of 15 participants.

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<sup>5</sup> KC activities had begun in a small portion of treatment areas (see Beatty et al. 2013, pp. 26)

Qualitative key informant interviews (KIIs): Qualitative KIIs were conducted in the same sub-sample as the qualitative focus groups. A total of eight key informants (KIs), (six municipal and two barangay officials) per municipality were targeted for interviews. At the municipality level, the KIs were the municipal mayor, vice-mayor, representatives from the Municipal Development Council (MDC), municipal engineer (ME), municipal planning and development officer (MPDO), and municipal social welfare and development officer (MSWDO). At the barangay level, the KIs interviewed were the Barangay Captain (BC), and representatives of Barangay Development Council (BDC).

#### B. Interim data collection (February – June 2014)

Note that social preparation for cycle 1 began in approximately June 2012. At the time of the interim survey, municipalities had been through approximately two rounds of social preparation, and were in the process of implementing or beginning to implement a second round of sub-projects.

Household survey: 80 municipalities (40 pairs) of the original 198 municipalities that are part of the full baseline sample were resurveyed at interim. Within the 80 municipalities, we re-surveyed the same 80 barangays and the same 30 households per barangay. The 80 municipalities were chosen with a simple random sampling of municipality pairs roughly proportional to the baseline sample.

Barangay survey: Within the same sample of 80 barangays, we administered a barangay survey with the current barangay officials as the key respondents.

Structured Community Activity (SCA): The SCA was implemented in the same 80 barangays as the household and barangay surveys. Each community was given a small sum of money and the discretion to use it to construct or repair a public building, space, or infrastructure. The SCA is a data collection tool that entails collecting quantitative and qualitative data on community participation and decision-making by observing how a community carries out this simple community-driven task.

Barangay Assembly Observations: Qualitative barangay assembly (BA) observations took place in 10 barangay (5 pairs) taken from the original 24 barangays (12 pairs) that were part of the baseline qualitative focus group sample. The sample of 10 barangays included at least one barangay from each of the three main islands (Visayas, Mindanao and Luzon). Observations took place during the mandatory Barangay Assembly on or around March 29, 2014.

## IV. Hypotheses

### A. List of hypotheses

Below in Table 1, we lay out the hypotheses we plan to test for the interim data analysis, and we describe what types of variables will be included in that analysis. Appendix 1 provides greater detail about the construction of variables used to analyze each hypothesis. Note that where relevant, results for the above hypotheses will be disaggregated by relevant subgroups, such as poverty status, gender, remoteness and region. Additional subgroups are mentioned in Appendix 1.

Table 1: Hypotheses to be tested in interim data analysis

	Data Source		
	Household surveys	Barangay surveys	Structure Community Activity (SCA)
<b>Socio-economic domain</b>			
H1: Relevant SPs reduce travel time, distance and cost to key services	<ul style="list-style-type: none"> <li>Changes in travel time and cost to nearest services</li> </ul>		
<b>Institutional domain</b>			
H2: KC increases quantity and quality of participation in local governance around <i>decision-making</i> (broadens base of participation; equitable participation)	<ul style="list-style-type: none"> <li>Participation in and knowledge of formal structures</li> <li>Barangay information sharing and inclusiveness</li> <li>Confidence and self-efficacy</li> <li>Participation in KC activities (compared pre-post as a way to document treatment)</li> </ul>	<ul style="list-style-type: none"> <li>Barangay Council (BC), Barangay Development Council (BDC), and Barangay Assembly (BA) meeting frequency and attendance</li> <li>Inclusiveness of the BC, BDC and BA</li> </ul>	<ul style="list-style-type: none"> <li>SCA meeting held or not</li> <li>Number of attendees; gender of attendees; 4P/not attendees; age of attendees; IP self-identification; attendees as function of barangay size;</li> <li>Number of interventions (times people spoke)</li> <li>Number and proportions of interventions by gender, BC member (each by type of intervention and target audience)</li> <li>BC member dominance (perceptions of BC influence)</li> <li>Voting occurred</li> <li>Chose project</li> <li>Decision made before meeting</li> <li>Clear next steps</li> <li>Meeting duration</li> </ul>
H3: KC increases quantity and quality of participation in local governance around <i>implementation</i>	<ul style="list-style-type: none"> <li>Participation in local public projects</li> </ul>		<ul style="list-style-type: none"> <li>Follow-up forms available and complete</li> <li>Implemented planned project</li> <li>Community contributions to project</li> <li>Community form match hardware store form (ie, what the community says they intend to purchase is what is purchased from the hardware store)</li> </ul>
H4: KC increases knowledge & awareness of local governance	<ul style="list-style-type: none"> <li>Name members of BC</li> <li>Knowledge of whether there is a BDC in the barangay</li> </ul>	<ul style="list-style-type: none"> <li>Number of BDC and BC meetings with KC volunteer present</li> </ul>	
<b>Community empowerment domain</b>			

	<b>Data Source</b>		
	<b>Household surveys</b>	<b>Barangay surveys</b>	<b>Structure Community Activity (SCA)</b>
H5: KC increases interactions among peers (novel opportunity to work together; equitable participation)	<ul style="list-style-type: none"> <li>Each respondent asked about 10 other randomly selected respondents in the barangay. Asked about whether they know each other, frequency of interaction, whether discussed problems in barangay</li> </ul>		
H6: KC does not reduce participation in current community organisations or support	<ul style="list-style-type: none"> <li>HH member participation in civic, political, volunteer groups, frequency of participation, cash, labor and goods contributions</li> </ul>	<ul style="list-style-type: none"> <li>Number of civic, political, volunteer groups in the barangay</li> </ul>	
<b>Other</b>			
H7: KC improves the degree to which local projects correspond to ex-ante preferences	<ul style="list-style-type: none"> <li>KC SP request and funding matches baseline ranking of projects in HH survey (only in treatment areas)</li> <li>Other projects funded outside of KC match baseline ranking of projects in HH survey (only in treatment areas)</li> </ul>		<ul style="list-style-type: none"> <li>Project type selected in SCA matches baseline ranking of projects in HH survey (Project type options taken from list of options from project implementers.)</li> </ul> <p>We will provide thorough explanation of this analysis by 1) discussing first whether communities preferences in baseline were met by KC (through the quantitative surveys), and 2) attempting to see if there is a loose correlation between SCA projects and baseline preferences. We would not use these data to conclude that the needs of the community were not met.</p>

## B. Additional propositions

In addition to these hypotheses, we will also check on several additional propositions related to KC. We have less confidence that these changes will have taken place by the interim data collection and thus do not put these forward as explicit hypotheses testing the KC program logic. Nonetheless, they are potentially influenced by KC and thus merit examination as well.

*Additional propositions to check (data sources in parentheses):*

1. KC changes residents' trust of local governance (HH, Barangay surveys)
2. KC increases residents' willingness to rely on, support and trust others (HH, Barangay surveys)
3. KC helps people better deal with hardship (HH surveys)
4. KC increases participation in community organizations (HH surveys)
5. KC raises the capacity of local government (Barangay surveys)

In Appendix 1, we detail the specific variables used to test each of these propositions.

## V. Regression Specifications

### A. Unit of Analysis

Although we collect both barangay and individual-level outcome data, our primary interest is in the outcomes aggregated to the relevant unit of assignment. For all average treatment effects and between-barangay sub-group analysis, we will conduct our analysis at the barangay level. For all within-barangay sub-group analysis, we will conduct analysis at the household level (with appropriate clustering of standard errors, discussed below).

### B. Average treatment effects

For each of the aforementioned outcome variables, we will estimate the average treatment effects across our full baseline sample. These should be interpreted as intent-to-treat estimates due to program attrition discussed further in Section VI. Among those municipalities receiving treatment, all of our sample barangays will have completed the initial portion of the KC CEAC (known as “social preparation”), but only a portion will have received funding for their requested subprojects. The average treatment effects across our full sample should thus be interpreted as averaging the effects across these sets of barangays (below, we discuss sub-group analysis that attempts to separately identify the effects of each treatment).

The following OLS regression will be used to estimate the average treatment effects:

$$y_{ist} = \alpha + \beta_1 T_{is} + \beta_2 y_{ist-1} + D_s + \epsilon_{ist}$$

where  $i$  indexes either *barangay* or individual (as discussed above),  $s$  indexes strata, and  $t$  indexes data round.

Following [Bruhn and McKenzie \(2009\)](#), we include strata (pair/triplet) dummies, and baseline values ( $y_{ist-1}$ ) as regressors (where the latter are available). We cluster standard errors at the municipality level (the unit of treatment assignment) to account for correlation of residuals within treatment units.

Our main coefficient of interest is  $\beta_1$ , the average treatment effect.

## C. Sub-group analysis

### 1. Within-barangay sub-groups

For all sub-groups of individuals within barangays, we will conduct our analysis at the household level. The sub-groups of interest will be:

1. Indigenous Persons (IP)
2. Female respondents
3. Households officially classified as poor at baseline by falling below the official regional per capita income poverty threshold

Our OLS estimation for these sub-group effects will use the following specification:

$$y_{ist} = \alpha + \beta_1 T_{is} + \beta_2 z_{ist-1} + \beta_3 T_{is} * z_{ist-1} + D_s + \epsilon_{ist}$$

Where  $z_{ist-1}$  denotes a baseline indicator of this sub-group status, and  $\beta_3$  denotes the differential treatment effect for this sub-group.

### 2. Between-barangay sub-groups

For all sub-groups of barangays, we will conduct our analysis at the barangay level. The sub-groups of interest will be the following:

1. Barangays with higher values of baseline outcome variables. These regressions will take the following form:

$$y_{ist} = \alpha + \beta_1 T_{is} + \beta_2 y_{ist-1} + \beta_3 T_{is} * y_{ist-1} + D_s + \epsilon_{ist}$$

2. Barangays with higher shares of poor households at baseline. These regressions will take the following form:

$$y_{ist} = \alpha + \beta_1 T_{is} + \beta_2 P_{ist-1} + \beta_3 T_{is} * P_{ist-1} + D_s + \epsilon_{ist}$$

where  $P_{ist-1}$  denotes the share of barangay households who are classified as poor at baseline.

3. Barangays where levels of baseline governance are in the top 50%. These regressions will take the following form:

$$y_{ist} = \alpha + \beta_1 T_{is} + \beta_2 G_{ist-1} + \beta_3 T_{is} * G_{ist-1} + D_s + \epsilon_{ist}$$

where  $G_{ist-1}$  denotes the share of barangay in the top 50% of the aforementioned baseline measure.

4. Barangays receiving subproject funding and those not yet receiving subproject funding

As noted above, by the date of the first follow-up data collection, a portion of our treatment sample barangays will have received funding for their requested subproject. Because the assignment of barangays to SP funding is non-random and occurs following the treatment assignment, OLS estimation using a SP funding status indicator as a regressor may be biased. This may be true even if we include a large set of baseline observables; unobservable characteristics among awardees and non-awardees may be correlated with the outcome of interest.

Instead, we rely on a regression discontinuity framework, relying on the discontinuous differences in the probability of being awarded a SP based on the ranking of each barangay’s SP proposal in its Municipal Inter-Barangay Forum (MIBF). Specifically, we use the following specification:

$$y_{ist} = \alpha + \beta_1 SP_{ist-1} + \beta_2 Rank_{ist-1} + \epsilon_{ist}$$

Where  $Rank_{ist-1}$  denotes the barangay’s ranking in the MIBF. Given the wide variation in the size of municipalities, a percentile rank rather than absolute rank may be more closely correlated with the likelihood of SP award. If the MIBF rankings and the interim survey data show this to be the case, we will use the percentile rank measures in the above regressions.

#### D. Multiple Hypothesis Testing

Because we test hypotheses based on multiple outcome variables, we estimate overall average treatment effects and overall sub-group-specific treatment effects pertaining to all variables related to each hypothesis following Kling & Liebman (2004). That is, we standardize all outcome variables, then estimate the aforementioned specification for each of these outcome variables. The overall treatment effect for each hypothesis is calculated as the mean of the variable-specific treatment effects. The standard error of this effect is estimated using seemingly unrelated regression (SUR) estimation.

### VI. Addressing Potential Problems

#### A. Attrition

As mentioned above, we will check baseline balance of the analytical sample to assess the success of random assignment. In addition, we will use the analytic sample to assess whether attrition affected the comparability of treatment and control groups. These models will have the same structural form as the models that will be used to estimate impacts. For example, we will examine treatment and control differences on the baseline value of the outcome variables from the primary research hypotheses described in Table 1, and background variables such as household consumption, labor market participation, and remoteness. These models will include dummy variables for treatment status and pairing. If we discover differential attrition, we will consider imputation methods while running several sensitivity tests to ensure that the results are robust to several forms of estimation.

#### B. Contamination

Contamination threats: Bottom-Up Budgeting (BUB) is a CDD project that uses the Local Poverty Reduction Action Process (LPRAP) to identify project needs, which means that communities/barangays propose projects. (At the time of writing the pre-analysis plan, we learned from MCA-P BUB’s new name is Grassroots Participatory Budgeting Process (GPB).) Funding for projects is requested by municipalities and granted to municipalities by relevant ministries, and projects are implemented by national government agencies. There has been debate as to whether BUB as an intervention, which will be implemented in all communities, will be sufficiently like KC as to constitute contamination. BUB as implemented until the interim data collection has not been run by DSWD, but DSWD may take over project implementation. We

understand anecdotally that it hasn't been run in a KC-like manner, but this survey and further investigation by MCA-P will attempt to understand that.

The entire impact evaluation sample is due to receive disaster relief funding through the National Community-Driven Development Project (NCDDP) that will be implemented with the KC-model. NCDDP did not occur prior to or during the interim data collection and thus does not constitute a threat at this time.

To confirm that contamination concerns are unfounded at this time, we (1) verified with DSWD that they did not run KC in the evaluation control areas; (2) collected data in the interim barangay survey as to sources and types of projects confirming that respondents have not received KC (checking for compliance of randomization); (3) verified that there remains a difference between total barangay funding between treatment and controls; (4) collected data in the interim household survey as to whether individuals have heard of BUB and or attended BUB meetings, and collected information in the barangay captain survey about BUB. For example, through the barangay survey, we collect information on the funding source of every project that has taken place in the barangay since the baseline, including BUB; and the barangay captain and officers are asked whether they have heard of BUB and whether BUB has been implemented in the barangay. In the event that we observe more than 30% contamination we would need to change our interpretation of the impact evaluation. Contamination at the barangay level would mean that an equal or higher proportion of households in control areas had heard of or participated in BUB compared to treatment areas. If 30% or more of barangay had met this threshold, then this would be considered contamination. If we uncovered this result, we would explore whether BUB assignment was random relative to KC assignment, meaning that there were equal shares of BUB participation across treatment and control groups, with no differences in observable characteristics in barangay that participated in BUB versus those that didn't. If BUB assignment was relatively random, we would not change interpretation of the findings. If BUB assignment was non-random relative to KC assignment, we would conclude that the comparison units were no longer pure controls but less intensely treated units. The evaluation could then be thought of in a dose-analysis framework, wherein KC-like treatment dose is still random.

There is also a potential opportunity with BUB. If BUB has been implemented in communities (as long as it remains a non-KC-like intervention), we could take this as an opportunity for a real-life observation. Do treatment and control communities implement BUB differently? Are participation measures different? BUB could potentially serve as a real-life SCA.

Typhoon Haiyan and other calamities: Looking at maps of the affected areas and data from DSWD, we have determined that recent calamities have not struck treatment and control groups differently such that they are no longer comparable, affecting baseline balance. Interim household and barangay surveys gathered data to inquire into this possibility. In the event that we find differential impacts, we would carefully consider how to deal with them, considering, for instance, whether or not we need to drop the pair.

## Appendix 1: Variable construction

Here we summarize for each hypothesis what variables will be used to test the hypothesis and how they will be analyzed. We also describe what variables will be used to check additional propositions, to assess on the extent of exposure to BUB, and to form subgroups.

### **H1: socio-economic: Relevant SPs reduce travel time, distance and cost to key services (material improvements)**

- Changes in travel time and cost: create sum of travel distance, time, cost each, using ACS1, ACS3, ACS5 respectively, across facilities 1-11

### **H2: institutional: KC increases quantity and quality of participation in local governance around decision-making (broadens base of participation; equitable participation)**

- Participation in and knowledge of formal structures

#### ***Household***

- CP1-12, participation in governmental group or institution or purok/barangay organization
- CP14, any HH members participated in sweeping, cleaning, construction, repair, maintenance of village or neighborhood infrastructure. Sum # HH members and # activities related to public goods (for each activity, determine whether contributed to public or private good)
- CP21 HH, contributions in time and PHP
- PG5-A through PG5-D, whether any HH member in last 6 mo attended BC, BA, BDC, MC meetings
- PG7-A through PG7-D, # times attended BC, BA, BDC, MC meetings
- PG5-E through PG5-J, whether relied on government or engaged in protest
- PG7-E through PG7-J, # times relied on government or engaged in protest
- PD3, knowledge of next barangay assembly (BA) meeting.
- PD1, who should participate in BAs
- PD4, if attend BA in last 12 mo
- PD5, if spoke publicly at BA
- PD7, how many times did respondent speak

#### ***Barangay***

- BC, BDC and BA meeting frequency and attendance
  - BRB3: total BC meetings since June 2012
  - BRB4: total BC meetings in last 12 months
  - BRB5: date when last BC was conducted. Calculate # days between last BC meeting and date of interview.
  - BRB6: total number of people attending last BC mtg.
  - BRB9: total BDC meetings since June 2012
  - BRB10: total BDC meetings in last 12 months
  - BRB11: date when last BDC was conducted. Calculate # days between last BDC meeting and date of interview.
  - BRB12: total number of people attending last BDC mtg.
  - BRB14: total BA meetings since June 2012

- BRB15: total BA meetings in last 12 months
  - BRB16: date when last BA was conducted. Calculate # days between last BA meeting and date of interview.
  - BRB18: did you hold synchronized BA in Oct 2013
  - BRB19: planning on holding synchronized BA March 2014
  - BRB20: total number of people attending last BA mtg
- Barangay information sharing and inclusiveness

***Household***

- PD2, informed of BA in last 12 months
- PD8, were residents consulted at the BA
- PD9, if there were issues about which community should have been consulted but wasn't
- D10, why wasn't community consulted
- PD11, does any group dominate in BA
- SN8, If [...] and you each recommended a different project (that would benefit the barangay) to the barangay captain, whose idea do you think would receive the captain's support?

***Barangay***

- BRB1: % women on BC
  - BRB8: how many NGOs in each sector are part of the BDC
  - BRB6: % women attending BC
  - BRB7: % women members of the BDC
  - BRB12: % women attending BDC
  - BRB13: who should attend BAs
  - BRB17: ways of informing people of BA
  - BRB20: % women attending BA
  - CP3: whether community activity is registered w barangay
  - CP4: number of times total BDC met with org
  - CP5: whether org participates in BDC decisions
  - PD1: whether made decision at last BA mtg
  - PD2: who makes decisions
  - PD3: whether one group dominates
  - DA6+16: who was involved in creating bg dev plan for 2012 and 2013.
- Confidence and self-efficacy
    - CP13, confidence to participate in community development activities
    - PD14, comfort w speaking in BA
    - PD15, likelihood of talking to barangay captain if there was an issue respondent felt strongly about
    - SCT7, how much impact does respondent have in making barangay better place to live.
- Participation in KC activities (compare pre-post as a way to document treatment)
    - all of module 16

- SCA meeting held or not; Number of attendees; gender of attendees; 4P/not attendees; age of attendees; IP self-identification; attendees as function of barangay size;
  - Meeting Attendance Sheet
  
- Number of interventions; Num and proportions of interventions by gender, BC member (each by type of intervention and target audience)
  - Discussion Dynamics Form
  
- BC member dominance (perceptions of BC influence); Voting occurred; Chose project; Decision made before meeting; Clear next steps; Meeting length
  - Enumerator Impressions Form

**H3: KC increases quantity and quality of participation in local governance around *implementation***

- Follow-up forms available and complete; Implemented planned project
  - Barangay Project Completion Form, Community Materials Claim Form, Project Contributions Form
- Community contributions to project
  - Project Contributions Form
- Does community form match hardware store form
  - Community Materials Claim Form, Hardware Store Materials Claim Form

**H4: KC increases knowledge & awareness of local governance**

*Household*

- PG1, can name members of barangay council
- G3, knowledge of whether barangay has barangay development council

*Barangay*

- BRB21: # BDC and BC meetings with KC volunteer present.

**H5: Community empowerment (peer-to-peer): KC increases interactions among peers (novel opportunity to work together; equitable participation)**

*Household*

- SN1, know anyone in X's HH
- SN2, who do you know in X's HH
- SN6, frequency of talking to someone in X's HH
- SN7, ever discussed problems in barangay w someone in X's HH

**H6: Community empowerment (peer-to-peer): KC does not reduce participation in current community organisations or support**

*Household*

- CP1-1 through CP1-96, except CP1-12 (CP1-12 used above), any member of HH participate in a group, combined with CP3 and CP4 to determine # HH members participating in # groups.

- CP6 and CP7, frequency and duration of meetings. Combine vars to get total min in last 12 mo. create total mins for HH.
- CP11 and CP12, whether contributed cash or goods and how much.
- CP14, any HH members participated in sweeping, cleaning, construction, repair, maintenance of village or neighborhood infrastructure. Sum # HH members and # activities related to private goods.
- CP21, sum days participated across all HH members, and sum total cash and goods contributions across all HH members (but keep time and cash separate), for only private goods.

***Barangay***

- CP1-2: sum unique # groups in barangay.
- CP2: sum total # groups in barangay

**H7: KC improves the degree to which local projects correspond to ex-ante preferences**

BW1: facility/project choices are A-V in BW1. Determine what SPs were granted in barangay, put into choice A-V in BW1, compare ranking to what was received. Similarly categorize SCA projects into A-V categories

*Additional propositions to check:*

1. KC changes trust of local governance

***Household Surveys***

- GV1A through GV1D: quality of officials in carrying out duties.
- GV2: ever heard about corruption
- GV3A through GV3E: honesty of officials. sum across 5 officials.
- GV4A through GV4D: typical to get commission. sum across 4 officials.
- GV5: what % of corruption is typical
- GV6: what % corruption is acceptable
- SCT4: if dispute about money, who would resolve.
- SCT5: if tragedy in barangay, who would help. Sum # answers checked.
- SCT6: if problem in barangay, how would resolve.

***Barangay Surveys***

- GV1A through GV1C: quality of officials in carrying out duties.
- GV2: ever heard about corruption.
- GV3A through GV3D: honesty of officials.
- GV4A through GV4C: typical to get commission.
- GV5: what % of corruption is typical
- GV6: what % corruption is acceptable
- SCT4: if tragedy in barangay, who would help.
- SCT5: if problem in barangay, how would resolve.

2. KC increases willingness to rely on, support and trust others

***Household***

- SN4: help anyone in HH
- SN5: receive help from HH
- SN8: whose idea would receive captain's support
- SN9: how trustworthy
- SCT8A: trustworthiness of ppl in barangay

- SCT8B: trustworthiness of ppl outside barangay

***Barangay***

- SCT6: how much impact do you have in making barangay better place.
  - SCT7A: trustworthiness of ppl in barangay.
  - SCT7B: trustworthiness of ppl outside barangay
3. KC helps people better deal with hardship
    - DE6-9, sum across all events.
    - DE6 and DE7: if experienced hardship (DE6), 1 if asked for help from anyone in DE7
    - DE8: where does supporter reside.
    - DE9: received support.
  4. KC increases participation in community orgs.
    - SN10: if you and X belong to same group
  5. KC raises capacity of local government
    - DA1: sum IRA allotment in 2012 and 2013.
    - DA2: sum internally generated funding in 2012 and 2013.
    - DA3: sum donations in 2012 and 2013.
    - DA4+5+14+15: whether have record of projects in barangay for 2012 and 2013. had barangay dev plan for 2012 and 2013.

**Checks Related to BUB**

- CDD2: heard of BUB
- CDD3: been implemented
- CDD4: HH member participated
- CDD6: sum # times participated across all HH members.

**Subgroup construction**

***Household Surveys***

- community program/activity
  - SPB3: whether HH receives benefit program
- information and communication
  - IC1 through IC5: sum minutes (convert hours to minutes), # texts, # times read newspaper
- tragic events
  - DE2: add up # bad events.
  - DE3: whether home was damaged.
  - DE4: extent of damage.
- HH's personal connections to barangay gvmt
  - PG2: sum HH members who are in BC
  - PG4: sum HH members who are in BDC
  - SCT9A through SCT9F: sum from A-F know closely.
  - SCT10A through SCTF

### *Barangay Surveys*

- dominance/entrenchment of barangay captain
  - o BG3: calc % voted with # voted from BG3 and DGI3 # registered voters
  - o BG4: calc % winning votes with # votes from BG4 and # voted from BG3
  - o using BG5-9
    - # unique captains since 1992
    - # unique captains who werent related to any other captain or BC since 1992
    - # years current captain in office, incl non-consecutive terms. Make negative (so that longer is negative)
  
- tragic events
  - o SP1: add up # bad events. (can tell if event was good or bad by SP4 and SP5)
  - o SP1: add up # good events.
  - o SP3: % affected by bad events.
  - o SP3: % affected by good events.
  
- social programs in barangay
  - o SPB2: whether program was implemented in barangay. Sum total # programs.
  - o SPB4: calc % residents receiving program using SPB4 compared to DG1.