Evaluation Design Plan

1. Intervention and Theory of Change

1.1 Background

In 2012, one out of every five Filipino families was considered poor, or approximately 4.2 million families[1]. Poverty has widespread harmful effects especially on children. Many impoverished families often view child labor as a necessary means for survival. In the Philippines, certain areas that have higher rates of poverty also experience higher rates of child labor, such as in Northern Mindanao and Eastern Visayas with 14.2 percent and 8.2 percent, respectively, of children participating in labor activities.[2] In 2011, out of the 29.019 million Filipino children (5-17 year-old), 3.21 million, of the total 5.5 million working children, were identified as participating in unlawful child labor. Almost all of these children, 2.99 million (93%), were engaging in hazardous child labor (in activities where chemical, physical and biological hazards exist). Both boys and girls are engaging in hazardous labor activities; however, there are twice as many boys than girls in such activities.[3] While a majority of these child laborers participate in agricultural activities, such as in production of sugar cane, other areas of labor include participation in domestic help, production of pyrotechnics, scavenging, deep sea fishing, mining, prostitution, and drug trafficking.

In 2013, the US Department of Labor's Bureau of International Labor Affairs published its report, *Findings on the Worst Forms of Child Labor*, taking note of the Philippines' "significant advancement in efforts to eliminate worst forms of child labor." In their continued efforts to decrease child labor, especially in hazardous environments, DOLE is implementing Kabuhayan Para sa Magulang ng Batang Manggagawa (KASAMA) in some of the Philippines' poorest provinces. In the KASAMA program, DOLE focuses on improving access to sources of income for the parents of child laborers and building the capacities of communities to prevent and address child labor.

This evaluation is motivated by the question of whether it is possible to sustainably change how families generate their livelihoods in a way that eliminates child labor. The evaluation will focus on the aspects of KASAMA focused on sustainable livelihood promotion. Whether and how sustainable livelihood projects influence child labor is an important research question as sustainable livelihood promotion has become the centerpiece of anti-child labor programming.

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[1] Philippine Statistics Authority - National Statistics Coordination Board, Poverty, Human Development and Gender Statistics Division. (2013). *2012 Full Year Official Poverty Statistics.* Retrieved from http://www.nscb.gov.ph/poverty/data/fullterm2012/Report%20on%20the%202012%20Full%20Year%20Poverty%20Statistics.pdf

[2] Philippine Institute for Development Studies. (2012). Profile of Out-of-School Children in the Philippines. Retrieved from http://dirp4.pids.gov.ph/ris/dps/pidsdps1201.pdf

[3] International Labor Organization & Philippines National Statistics Office. 2011 Survey on Children. Received from http://www.ilo.org/wcmsp5/groups/public/@asia/@ro-bangkok/@ilo-manila/documents/meetingdocument/wcms_184097.pdf

The KASAMA program is a package of assistance composed of trainings and an in-kind transfer of equipment, tools and/or raw materials to be used in the livelihood undertakings of eligible beneficiaries. Eligible beneficiaries are the parents of child laborers, and they are identified primarily through a database of children profiled by DOLE in early 2014 and the Philippine Department of Social Welfare and Development's National Household Targeting System for Poverty Reduction database of households. In our evaluation, KASAMA will be implemented as a one-time, in-kind award of PHP10,000 (USD$518 in PPP terms) in capital to parents of child laborers. The beneficiaries are also provided a social preparation training that teaches them simple bookkeeping and another optional, enterprise-specific training aimed to improve productivity. These trainings are usually conducted by the respective DOLE regional office or resource persons from the Bureau of Workers with Special Concerns.

The program aims to promote entrepreneurial initiatives that will provide opportunities for vulnerable workers to augment their incomes. Ultimately, it seeks to transform these livelihood activities into sustainable enterprises to generate employment within the beneficiaries' communities. Parents who receive the intervention must express willingness to remove their children from exploitative child labor by signing a letter committing to end child labor within their household.

1.2 Logic Model

We expect the impact of KASAMA would flow through either the parental commitment or the impact of the livelihood promotion interventions. Figure 1 contains the logic model for how engagement with KASAMA will impact child labor for direct beneficiaries.

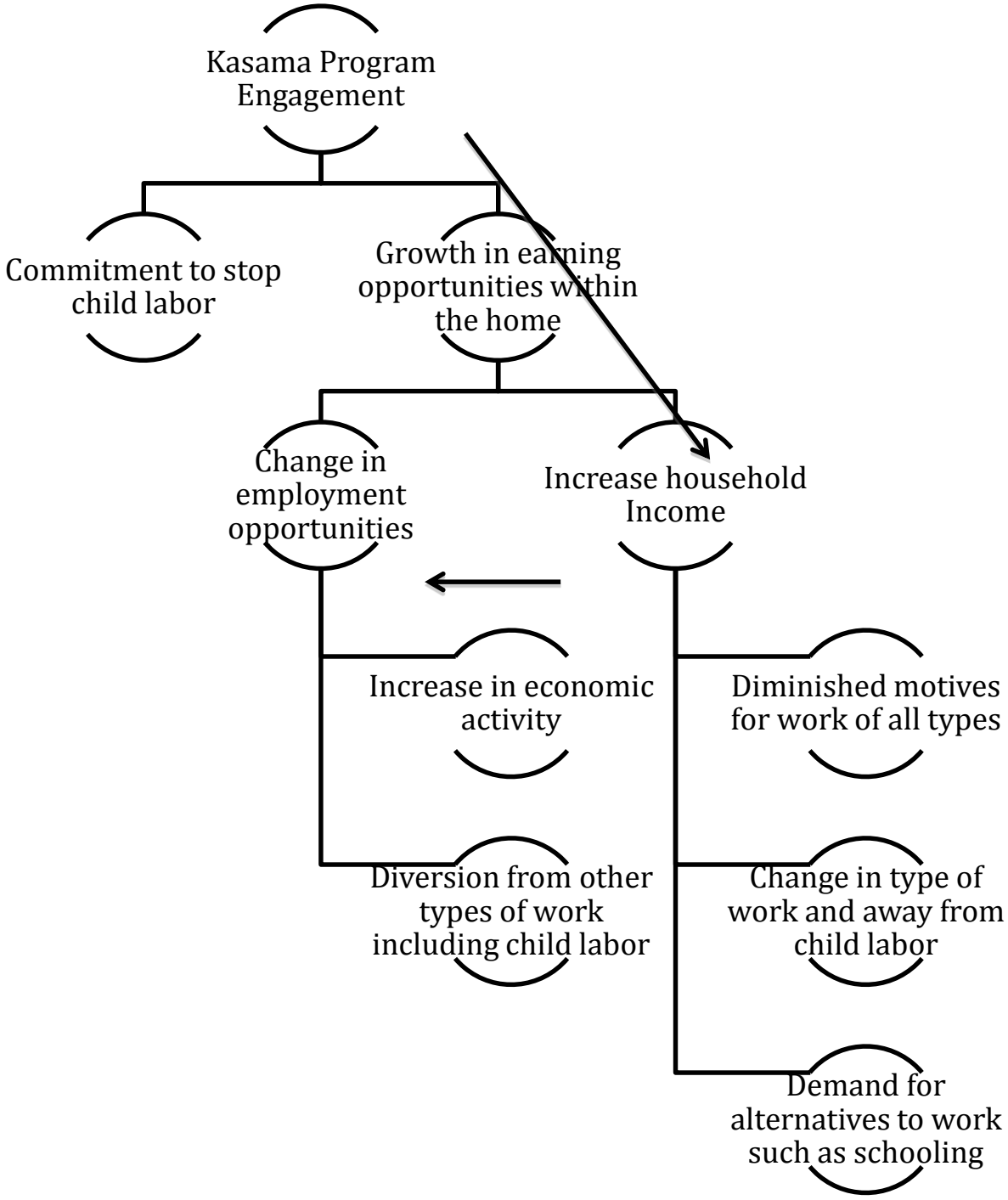

Figure 1: Logic Model for Direct Beneficiaries

Beyond the parental commitment to stop child labor, we expect KASAMA to influence time allocation through its direct resource transfer (indicated by the arrow from the

program to increased household income) or through the expansion of earning opportunities within the home of child laborers.

The impact of the parental commitment should be evident immediately as beneficiaries begin engagement with the project. It's impact throughout the period of evaluation may persist if the commitment changes household norms although we suspect that the saliency of this original commitment will fade over time and may be difficult for beneficiaries to recall by our endline survey in January 2018.

The direct resource transfer will immediately make beneficiaries better off. We expect to see the impact of the direct resource transfer immediately in the project as transfers rollout between March and September 2016. It is a one-time transfer. Subsequent to the direct resource transfer to beneficiaries, we expect beneficiaries to leverage that into sustained, productive income generating activities. Within 6 months of the dispersion of benefits it should be possible to identify whether the transfer has been leveraged into a productive new source of income or an increase in an existing line of business. We will measure this in January 2018, approximately 18 months after the distribution of benefits. This longer perspective (has the impact of the transfer sustained after 18 months) should allow us to detect primarily meaningful changes in the household's economic status. We will not be able to detect transitory effects of the transfer that do not last until the endline survey of January 2018.

The direct resource transfer or the increase in household income coming through the growth in earnings opportunities within the home should impact child labor in three ways. First, it might diminish the economic motives that lead to child labor in the first place. Liquidity constraints might be relaxed, subsistence constraints, or poor families might simply feel that they can forego child labor. Second, it might change the type of work children perform. Additional income might lead to more household goods where child time is complimentary. For example, additional income might lead to purchase of a bicycle which a child could use in a delivery business or it might lead to a washing machine that would replace the child's time manually washing clothes. Alternatively, improved income might lead households to care more about the negative amenities associated with work that qualifies as child labor. Third, increased income might lead to demand for alternatives to work such as leisure or schooling. Of course increased income could also change the types of employment opportunities in the household depending on the impact of income directly on the economic structure of the household. All of these channels could be in play immediately with the initial distribution of benefits, and all should persist if the impact of KASAMA on income sustains.

An increase in income through a growth in employment within the household should influence child labor in the same way as the direct resource transfer, albeit with differences in magnitude and longevity. Depending on the course in how households leverage KASAMA into a growth in income generating activities, changes in the economic structure of the household could take several months to manifest. The expansion of earning opportunities within KASAMA families can also impact child labor, holding the impact of KASAMA on income fixed. First, KASAMA should lead to more economic activity

available within the household. Working children are more apt to do so within the home. This might be, because of regulatory barriers to employment away from the house, the nature of formal labor market work, or the disutility parents feel from having children work away. Regardless of the why, an expansion of household employment opportunities could lead to more children working. While this work would not be legally child labor, we could easily see more economic activity among children as a result of KASAMA.

The expansion of earning opportunities could also lead to changes in how children work. This might reduce child labor if KASAMA draws children into the home to either work in the new activities or to replace the household activities previously done by a parent drawn into the new activity.

Overall, KASAMA, by virtue of being a large, one-time transfer may have short term effects on the household through all of the mechanisms described in figure 1, and these effects may be immediately evident (although it is reasonable to expect a change in the economic structure of the household to take several months to evolve). Our study, by virtue of an endline survey approximately 18 months past benefit distribution, is designed to capture these changes that sustain and persist beyond the initial benefit distribution.

1.3 Results Framework

See *Appendix A.*

2. RCT Design

2.1 Evaluation Design

In the first year of the project the research team has worked with DOLE to precisely define the treatment, define the geographic coverage of the evaluation, and pilot the evaluation design. The proposed evaluation includes a sample of 250 communities, or *barangays*, and 3,500 households selected from those communities. The exploratory and pilot period of the evaluation has refined the exact details of the randomization. We will test the above research questions using cluster randomization where some communities receive KASAMA and some act as true controls with no treatment. Communities will be equally divided between treatment and control as feasible.

The project will operate in Regions II, III, IV-A, and V (throughout the island of Luzon) where child labor is particularly prevalent, as determined from the 2011 Philippine Survey of Children. In particular, these regions engage in agricultural production of key exports as well as gold mining. Individual communities are enrolled in the study after identification by DOLE as targets. Target communities are communities that have not previously received KASAMA but have high levels of child labor. From the list of target communities, half will be randomly assigned to receive the KASAMA treatment, while the other half will form the control group.

Individual beneficiaries within the community will be identified following DOLE's standard procedure for identifying beneficiaries. Specifically, the Barangay Council for the Protection of Children will compile a list of those individuals eligible to receive KASAMA.

2.2 Data Collection

KASAMA will be implemented by DOLE. IPA will be responsible for data collection, independent of DOLE, with assurances as to the confidentiality of responses. Treatment implementation will be at the community level. The impact evaluation will rely on data collected at the household level with data on household behavior, the time allocation of individuals within the household, and the status of household members living elsewhere.

The Principal Investigators (PIs) will monitor all work by IPA staff and implementation by DOLE. The PIs will engage in weekly calls with the IPA staff in order to obtain regular updates regarding data collection, treatment rollout, and the partnership with DOLE. The PIs are also responsible for drafting survey instruments, quality checks on data collection, analysis of data, and research dissemination.

2.3 Power and Minimum Detectable Effect Sizes

The statistical power of an RCT is the probability of detecting a given effect at a given significance level, in the event the intervention has an impact. An under-powered study runs the risk of concluding that the intervention had no impact when in fact it did, simply because the sample was not large enough to give statistically significant results.

Power calculations for the full evaluation can be constructed using data on child labor in the Philippines where 10 percent of children are in hazardous forms of child labor. The formulas employed in power calculations are laid out in Hayes and Bennett, "Simple sample-size calculations for cluster-randomized trials", a reference article for calculating power in cluster-randomized trials.[4] The formula employed for calculating the number of clusters required is as follows, where c is the number of clusters, n is the number of individuals sampled per cluster, k is the intracluster correlation coefficient, and $\pi 1$ and $\pi 0$ are the population indicators in the presence and absence of the intervention, respectively. $z_{\alpha/2}$ and z_{β} are standard normal distribution values corresponding to upper tail probabilities of $\alpha/2$ and β, and the sample size provides a power of $100(1-\beta)\%$ of observing an effect significant at the level α.

$$(1)\ c = 1 + (z_{\alpha/2} + z_{\beta})^2[\pi_0 (1-\pi_0)/n + \pi_1 (1-\pi_1)/n + k^2 (\pi_0^2 + \pi_1^2)]/(\pi_0 - \pi_1)\wedge 2$$

Following convention in the social sciences, for power calculations we used a significance level (probability of Type I error, i.e. rejecting the null hypothesis when it is in fact true) of 0.05 (alpha in the formula) and power (probability of avoiding a Type II error, i.e. not

[4] Hayes, R.J. and S. Bennett. 1999. "Simple sample size calculations for cluster-randomized trials." *International Journal of Epidemiology* 28: 319-326.

rejecting the null hypothesis when it is in fact false) of 0.8. We assume a one-sided test and an intracluster correlation of 0.2 consistent with estimates that have been used in the literature on randomized controlled trials in the educational sector (Hedges and Hedberg 2002).[5]

With 10 percent of children in hazardous child labor, we can detect a 50 percent decline in the prevalence of hazardous child labor with 3,500 households from 250 communities, using the assumptions of the previous paragraph.

In practice, KASAMA is targeted at families where child labor already occurs. Hence, while we should have power to detect a 50 percent change in child labor at the community level, we can detect much smaller changes in beneficiary households for the child in child labor at baseline. In fact, for children in child labor, 3,500 households from 250 communities should allow us to detect a two percent decline in child labor among children already engaged at child labor at baseline.

To calculate the minimum detectable effect, we use the following formula:

$$MDE = (z_{\alpha/2} + z_{\beta}) \sqrt{\frac{1}{P(1-P)}} \sqrt{\frac{\sigma^2}{N}} \sqrt{1 + (n-1)k}$$

where $z_{\alpha/2}$ and z_{β} are standard normal distribution values corresponding to upper tail probabilities of $\alpha/2$ and β, and P is the proportion of villages randomized to the treatment. We define N as the number of clusters, c, times the number of observations per cluster, n. k is the intracluster correlation coefficient. For a given sample size N, we prefer c to be large and n to be small as we get a smaller minimum detectable effect with a large number of clusters and small number of observations per cluster, than with a small number of clusters and large number of observations per cluster.

In the case of the KASAMA intervention, with c=250 villages and n=14 observations per village, our minimum detectable effect is a two percent decline in child labor. Comparing this to the previous literature on child labor, we expect an effect substantially larger than this minimum detectable effect in response to the KASAMA intervention.

2.4 Replacement Protocols and Data Quality Assurances

The randomization will occur at the community level. We will survey 14 households in each community. In the event that more than 14 KASAMA beneficiaries are identified in a community, we will use a lottery to randomly choose 14 beneficiary households to survey.

Replacement Protocols

We will have a list of replacement households for these communities that have more than 14 qualified beneficiaries. Households that refused or found unavailable after three visits

[5] http://drdc.uchicago.edu/what/hedges-hedberg.pdf.

for interviews during the baseline survey will be replaced by another household that is qualified for KASAMA benefits. The replacement household lists will be randomized by the research team, and survey supervisors will assign such households to enumerators in consecutive order as they appear in the list. These households will be included in the random survey audit to help verify the enumerators' findings and ensure accountability.

Back Checks (Audits)

To ensure the enumerators' quality of work and the robustness of the data, 15-minute field audit interviews will be conducted by auditors for at least 10 percent of completed surveys and a higher share for cases where the household refused or were unavailable. We will stratify which interviews are audited by enumerator to ensure all staff are properly covered. We will also audit more aggressively during the beginning of the survey, though the audits will be conducted throughout, especially as survey fatigue may take effect later on.

The audit questionnaire will include portions of the survey to be re-asked to test the stability of the outcome variables in addition to checking enumerator performance. Questions used to gauge enumerator performance will have answers that are unlikely to change between the time of the original survey and the survey audit

Frequency Checks

The Research Associate prepared a Stata .do file during pilot testing that will allow him to conduct frequency checks of the data from the outset. Frequency checks are designed to identify issues in survey programming, spot distribution of variable responses, evaluate if intervals and responses need to be adjusted, and track enumerator performance.

The Research Associate will process and review incoming data on a daily basis and identify any potential problems. For example, he will monitor the frequency of non-response (i.e. "don't know" or "refused to answer" cases), asses if such responses may be attributed to the question itself or to the interviewer, and take the appropriate action. Enumerators will be consulted immediately about any questionable data, and call backs will be conducted where necessary. This process of regularly reviewing and cleaning the data means there should be a relatively clean dataset shortly after the baseline survey is finished.

Respondent Tracking

Subjects will be tracked through two primary mechanisms. First, at the time of the baseline survey, we ask numerous questions to collect data to assist with tracking. Enumerators will record the GPS coordinates of each household. Further, we ask respondents for their mobile and landline phone numbers (if available). We also collect data on the two best people to contact should the respondent move from their current home and need to be contacted in the future. For these two individuals, we collect data on the address and phone numbers of these individuals.

Monitoring Compliance

The Memorandum of Understanding between IPA and the DOLE states that DOLE will share administrative data from the regions included in the study's sample after the randomization results have been implemented so the IPA research team may monitor compliance with the randomization results. Thus, DOLE's regional offices will prepare and send the research team quarterly reports on disbursement of KASAMA benefits that will enable us to monitor that treated beneficiaries receive benefits. These reports, which are already provided to the Bureau of Workers with Special Concerns on a quarterly basis, include data on the barangay, type of activity funded, whether funds have been disbursed, the amount disbursed, and date of release. We will also include questions in the endline questionnaire to gauge compliance with the randomization and corroborate the administrative data provided by DOLE.

2.5 Protection of Human Subjects

IPA requires all research studies and corresponding protocols to be approved by IPA's Institutional Review Board (IRB) and/or the IRB of a PI's university or institution. All data collected will be kept as confidential as possible and no individuals will be identified in any report or publication. All surveyed individuals will be assigned a unique identification code, and files with personally identifying information (PII) (such as names and addresses) will be stored separately from survey responses. All IPA staff will undergo training on confidentiality procedures and will be required to sign confidentiality agreements. The PIs and the members of the research team will be the only people with access to the codebook linking survey ID's and identifying information. All files (those with PII and those without) will be encrypted using Boxcryptor. Once the study is complete, we will clean and de-identify the data, which will be made available to other researchers upon request

For information collected first on paper, the forms will be designed so that the first page will contain the PII and the remaining survey pages will be marked with the assigned unique identification number. Once a survey is complete, the pages with PII will be removed from the survey will be stored separately from the rest of the survey information – with only the identification number linking the two files. All paper surveys will be stored in locked cabinets in the IPA Philippines office. Paper records are digitized via double blind data entry process and once digitized, PII will be kept separate from the rest of the survey data. The digital file containing PII will be encrypted and stored on the password-protected cold (offline) computers and on an externally encrypted hard disk and kept separately from the rest of the data.

For information collected electronically, data will be collected using the SurveyCTO Collect application (variant of Open Data Kit (ODK)) for Android devices. All Android devices will be encrypted and the data, which is encrypted at the point of collection, will be transferred (encrypted) through a secure WiFi or phone connection from the enumerator's passcode-protected device to the project's password-protected encrypted individual server, maintained by SurveyCTO. All files (those with PII and those without) will be encrypted using Boxcryptor, stored on password-protected computers. All

respondents will be given a unique identification number, and PII will be saved in separate files from the survey responses and stored on the password-protected cold (offline) computers and on an externally encrypted hard disk and kept separately from the rest of the data.

3. Data Analysis

3.1 Primary Outcomes of Interest

The primary outcomes of interest are:

- *Child labor*. Child labor will be defined using the official Philippines definition below collected from a household based survey. This information will be critical for testing hypothesis one and two. The data collected to measure child labor will also support measuring the prevalence of hazardous child labor as well. We do not anticipate power to quantify unconditional worst forms or traditional child labor.

- *Economic Activity* of all household members. Not all economic activity is child labor. This study will use a standard time allocation module as a part of the household based survey to collect a complete picture of the activities of children as well as adults. This complete view of time allocation will be critical for testing hypothesis four as it will be useful for identifying how the sources of livelihood change in the household.

- *Household income*. Identification of the impact of KASAMA on how the household generates its livelihood will also benefit from an accounting of how the household generates income.

- *Household consumption*. The primary measure of living standards used in this study will be consumption based. A consumption-based measure has advantages over an income measure in households with seasonal income or significant non-market contributors to livelihood. Hence, the test in hypothesis three requires this consumption data.

3.2 Primary Hypotheses

Hypothesis 1: Sustainable livelihood promotion does not reduce the prevalence of child labor amongst those already engaged

The stated goal of the KASAMA program is to stop child labor where it exists. Hence, a central question in the evaluation will be whether KASAMA stops child labor amongst children already engaged in child labor. Few RCTs have found an impact of any intervention on participation in child labor for children already engaged in child labor. Hence, a rejection of this hypothesis would be an extremely important finding for those believing in sustainable livelihood promotion as a tool to stop existing child labor.

Hypothesis 2: Sustainable livelihood promotion does not reduce entry into child labor

Most child laborers live with other children. In fact, a standard marker of vulnerability to child labor is a child co-resident with a child laborer. Hence, even though KASAMA is targeted to families where child labor exists, it is likelihood that KASAMA will also influence children not working at the start of the intervention. Most RCTs aimed at populations vulnerable to child labor find some elasticity of entry into child labor with interventions. Hence, the evaluation team suspects a priori that influencing entry into child labor will be more easily accomplished than reduction in child labor amongst those already engaged.

Hypothesis 3: Sustainable livelihood promotion does not change the household's standard of living.

A critical goal of this evaluation is to understand how KASAMA reduces child labor. The most direct channel will be through changes in household income, and we have ample evidence that entry into child labor can be extremely income elastic. Hence, an important aspect of understanding the impact of KASAMA is to identify whether it changes living standards.

Hypothesis 4: Sustainable livelihood promotion has no effect on how the household generates its livelihood.

Our discussion of child labor highlighted that it is the outcome of a complex calculation involving many factors, including the different types of activities available to the child. Hence, the introduction of new activities into the household through a sustainable livelihood project has the potential to influence child labor by changing the economic structure of the household. This might be through changes in income (hypothesis 3) or it might come through different demands on the time of children within the family's activities. Livelihood promotion has considerable scope for diverting children into different activities, and this evaluation will attempt to understand how important these activities are for changes in child labor.

3.3 Empirical Specification

The study size was chosen to be able to detect differences in child labor between those receiving KASAMA and those who do not in a simple comparison of means. This comparison of means can be written in regression form as:

$$(3)\ y_{i,j,k,t} = \beta_0 + \beta_1 D_k + \varepsilon_{it}$$

where $y_{i,j,k,t}$ is the outcome for child i in family j associated with community k at time t. D_k is an indicator that the child lives in a community receiving a KASAMA treatment. Our analysis will focus largely on $t=1$, the endline survey, ε_i is a mean zero error term.
We will consider the outcomes necessary to test our four main hypotheses as described in the RCT Methodology section. When y is child labor, β_0 is mean prevalence of child labor in the control group. $\beta_0 + \beta_1$ is mean prevalence of child labor for children living in treated, KASAMA, families.

Baseline data allows us to further reduce variance in (2) and more precisely estimate the impact of KASAMA treatment on child labor (or other outcomes in the household). Specifically, we modify (2) as:

$$(4)\ y_{i,j,k,1} = \beta_0 + \beta_1 D_k + \pi_1 ST_i + \pi_2 A_{i,t=0} + \pi_3 \left(A_{i,t=0} * F_i\right) + \alpha y_{i,j,k,t=0} + \varepsilon_{k1}$$

where $y_{i,j,k,t}$ is the outcome such as child labor for child i in family j associated with community k at time $t, t \in \{1,2\}$. $y_{i,j,k,t=0}$ is the value of the outcome variable at baseline. Its inclusion means that we identify the impact of *D* based on changes in *y* between the baseline period and the endline period. We anticipate that randomization will be conducted after stratifying the population based on DOLE's policy interests. We include a vector of dummies ST_i to denote each strata. Even within each strata, we have strong prior that outcomes are highly correlated with gender and age. To incorporate that in our specification, we include dummies for age at baseline, $A_{i,t=0}$ and include age-gender interaction $(A_{i,t=0} * F_i)$ as a control for all the outcomes that we consider. We also cluster errors at the community level for in each time period.

With the refinement of the treatment in the first stage of the project, we anticipate some modification to this approach specified in equation (3).

In addition to estimating the impact of the KASAMA treatment on child labor, we can test for heterogeneity of the KASAMA treatment across subgroups. Subgroups of particular interest include: gender of the child, age of the child, and number of children in the household. We also test for heterogeneity given ex-ante household characteristics. Explicitly, we examine the impact of KASAMA for agricultural and non-agricultural households. Agricultural households are those whose household head (or spouse of head) reports working on farm land. Non-agricultural households are those whose head (or spouse of head) reports working in a family business (households may be both types). We examine the impact of KASAMA on households engaged in industries in which the Philippines exports. We compare the impact of KASAMA in rural and urban households. These types of heterogeneity in the impact of KASAMA will be analyzed by estimating (3) separately for each group. We can then test for the equality of β_1 across these groups.

4. Child Time Allocation Definitions for the Kasama Project

Time allocation measures relate to schooling, economic activity, non-economic activity, and aggregated time use variables that combine information on economic activity and non-economic activity.

Schooling Related

Schooling is compulsory in the Philippines through Grade 11 in 2016 (ages 16 – 17). Hence, schooling outcomes will be considered for all children age 10-17. We start with age 10, because there is nearly universal primary in the Philippines, and our experience is that child labor and schooling are rarely elastic to outside influences below the age of 10.

Because of the age cuts in the child labor laws described below, we will consider the time allocation of children 10-17 as a group, 10-14, and 15-17.

The following measures will be constructed from the survey data:

Attends School (in the last 7 days) – Indicator that Question 8 of section 2 of Child Survey is greater than 0 [second measure based on response to Question 14 of section 1 of Household Survey >0]

School Attendance Rate (in the last 7 days) - 0 for children not attending school. Child Survey Question 8 / Child Survey question 9 if attend school. [second measure based on question 14 of Household Survey divided by Question 15 of Household Survey]

Behind Grade - Indicator that response to question 7 of section 2 of the child survey is less than child age - 6

Economic Activity Related

Working Children (Employed) - Engaged in economic activity (in the last 7 days).[6] The U.N System of National Accounts defines economic activity as all production that could be destined for the market, regardless of whether the decision is made to sell or retained for own use. Thus, economic activity occurs both inside and outside of the home, regardless of whether the good or service produced is sold in the market. It includes collection activities such as the collection of wood or water. A child is employed if the child answers any days in the last 7 days (question 302) or hours in the last 7 days (question 302) for items D, E, G, H, I, J, K, L, M, N, or O.

Employed in Family Based Economic Activity (in the last 7 days) – A child is employed in a household based economic activity if the child answers any days in the last 7 days (question 302) or hours in the last 7 days (question 303) for items D, E, G, J, K, or L.

Employed outside the Family (in the last 7 days) – A child is employed in economic activity outside the family if the child answers any days in the last 7 days (question 302) or hours in the last 7 days (question 302) for items H, I, or M.

Collects Wood or Water (in the last 7 days) – A child is employed in collection activities if the child answers any days in the last 7 days (question 302) or hours in the last 7 days (question 302) for items D or E.

Hours Employed (in the last 7 days) – The sum of answers to hours worked in the last 7 days (question 303) for items listed in the working child definition.

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[6] In national accounts, employed differs from economic activity, because individuals looking for work but without work are economically active but not employed. That distinction is not made in the child labor (Guarcello, L., I. Kovrova, S. Lyon, M. Manacorda, and F.C. Rosati, "Towards Consistency in Child Labour measurement" *Understanding Children's Work Programme,* June 2010).

Non-Economic Activity Related[7]

Hours in Unpaid Household Services (in the last 7 days) - Codes similarly to hours employed except for activities that meet the definition of unpaid household services (items A, B, C, and F in section 3).

Aggregated Time Use Variables

Children Engaged in Hazardous Child Labor (in the last 12 months) – a child participates in hazardous economic activity if any of the following are true:

- The child's work code in answer to question 304, 305, 306, or 307 of the child survey is on the list of hazardous occupations (http://www.oshc.dole.gov.ph/330/) or indicates begging or scavenging work:
    - Deep-Sea Fishermen
    - Mining And Quarrying Including Gold Extraction
    - Manufacturing Pyrotechnics
    - Street Work Including Scavenging And Begging
    - Scavenging In Dumpsites
    - Commercial Sexual Activity
    - Artistic and Entertainment Associate Professionals (Entertainers)
    - Plumbers
    - Brick making
    - Extraction of lard/oil
    - Vulcanizing (rubber workers)
    - Grain mill workers
    - Heavy Equipment Operator (ie., bulldozer operator)
    - Guard
    - Firefighter
    - Blacksmiths, Tool-Makers And Related Trades Workers
    - Charcoal Makers And Related Workers
    - Loggers
    - Garbage Collectors And Related Laborers
    - Handicraft Workers In Wood, Textile, Leather, Chemicals And Related Workers
    - Hotel Housekeepers And Restaurant Services Workers
    - Machinery Mechanics, Fitters And Related Trades Workers

[7] The 19th International Conference of Labor Statisticians explicitly included unpaid household services in its concept of child labor. However, child labor laws in the Philippines do not address unpaid household services in the child's own home. We have adopted definitions here that are consistent with Philippine child labor laws rather than the ICLS definitions.

    - Metal Molders, Welders, Sheet-Metal Workers, Structural-Metal Preparers And Related Trades Workers
    - Motor Vehicle Drivers
    - Shotfirers, Stone Cutters And Carvers
    - Textile, Garment And Related Trades Workers
    - Wood Treaters, Cabinet Makers And Related Trades Workers
- The child answers yes to any one of the following questions about their experiences while working over the last 12 months:
    - Was any of this work done after the sunset or before sunrise?
    - Do you ever have problems seeing while doing any of this work because of inadequate lighting?
    - Are there loud noises from machinery or people when you do this work?
    - Have you ever had to do this work in extreme temperatures or in a setting with poor ventilation?
    - Have you worked in an environment with lots of dust or debris?
    - Do you carry heavy loads while doing this work?
    - Do you operate any machinery or heavy equipment in this work?
    - Do you operate a motor vehicle in this work?
    - Are you ever exposed to an open flame or need to be concerned about being burned in this work?
    - Have you been injured while doing any of this work?
    - Do you handle any chemicals or toxic substances in this work including pesticides or fertilizers?
    - Do you wear protective gear such as gloves and masks when working with these chemicals?
    - Have you noticed headaches, skin problem, breathing problems, stomach problems, or a general feeling of unwellness after doing this work?
    - Do you think any of the work you've done is hazardous or dangerous to you?

Potential Forced or Bonded Laborer (in the last 12 months) – an indicator that is 1 if the child works around non-family members (YES to question 417 of the child survey) or works outside of his family dwelling or field (Answer to question 416 of the child survey is not family dwelling (1) or family field (2)) and meets any of the following criteria:

- Child is unable to take days off work (Answer to question 418 is NO)
- Child cannot refuse tasks at work (Answer to 419 is NO)
- Child is unable to leave work because of debt owed (Answer to 420 is NO and Answer to 421 is Yes)
- Child is unable to leave work because family would be punished (Answer to 420 is NO and Answer to 423 is Yes)
- Child is not paid for work (Answer to 434 is Yes)
- All income is turned over to others (Answer to 436 is 1)

Potential Trafficked Person (in the last 24 months)

This outcome will be constructed based on all children 10-17 (inclusive) in the household roster and all children 10-17 mentioned in section 2 of the household

survey. For migrant children (only in section 2 of the household survey), the child is a potential trafficked person if the child meets all the following criteria:

- Migrant is economically active (question 11 of Section 2 of the household survey is anything other than student (code 90) or unpaid household services (code 91))
- Migrant is not free to move back (question 16 of section 2 of the household survey)
- Migrant is not married living with spouse (question 5 of section 2 of the household survey)

For children in the household roster (section 1 of the household survey), a child is coded as a potential trafficked person if the child's not born in the community (question 6 of section 1 of the household survey is NO), the child does not have a parent present (Question 40 and 48 are both NO), the child does not attend school (question 9 section 1 of household survey is NO), and the child meets any one of the following criteria:

- The child was unavailable to complete the child survey
- Child is unable to take days off work (Answer to question 418 is NO)
- Child cannot refuse tasks at work (Answer to 419 is NO)
- Child is unable to leave work because of debt owed (Answer to 420 is NO and Answer to 421 is Yes)
- Child is unable to leave work because family would be punished (Answer to 420 is NO and Answer to 423 is Yes)
- Child is not paid for work (Answer to 434 is Yes)
- All income is turned over to others (Answer to 436 is 1)

Children (Potentially) Engaged in Other Worst Form of Child Labor (in the last 12 months)– child below the age of 18 who is a potential forced or bonded laborer, who is a potential trafficked person, who reports working as a child soldier, or who reports working in the commercial sex industry.

Children (Potentially) Engaged in Worst Form of Child Labor (in the last 12 months) – a child below the age of 18 who is engaged in hazardous child labor or (potentially) engaged in an Other Worst Form of Child Labor

Children Engaged in Child Labor (in the last 12 months)

Legal Background

Project definitions of child labor will be based on definitions set by the evaluation partner, DOLE, as they are implemented in the Philippine context. DOLE defines child labor on the basis of Philippine Republic Act Nos. 9231 and 7610 and ILO Convention 182 or the Worst Forms of Child Labor Conventions. Child labor is referred to as "any work or economic activity performed by a child that subjects him/her to any form of exploitation or is harmful to his/her health and safety or physical, mental or psychosocial development."

Republic Act 7610 defines children as "persons below eighteen (18) years of age or those over but are unable to fully take care of themselves or protect themselves from abuse, neglect, cruelty, exploitation or discrimination because of a physical or mental disability or condition."

Section 3 of Republic Act No. 9231 enumerates the worst forms of Child labor:

(1) all forms of slavery, as defined under the "Anti-Trafficking in Persons Act of 2003", or practices similar to slavery, such as sale and trafficking of children, debt bondage and serfdom and forced or compulsory labor, including recruitment of children for use in armed conflict;

(2) use, procuring, offering or exposing of a child for prostitution, for the production of pornography, or for pornographic performances;

(3) use, procuring, or offering of a child for illegal or illicit activities, including the production and trafficking of dangerous drugs and volatile substances prohibited under existing laws; and

(4) work which, by its nature or the circumstances in which it is carried out, is hazardous or likely to be harmful to the health, safety or morals of children.

It should be noted that in the Philippines, it is not considered child labor if children aged 15 years to below 18 years of age work if the following conditions are met: a) not more than eight (8) hours a day, b) not beyond forty (40) hours a week, c) not during 10:00 pm to 6:00 am the following day. It is required that if they do work under these circumstances, they should be provided with elementary and secondary education.

Children below age 15 may be economically active if the child is supervised by a senior family member such as a parent, if the child works in a location where only member of the child's family are employed, if the work is not hazardous, if the child attends school, and if the child's employer has a work permit for the child.

Implementation

The project codes children below the age of 18 as child laborers if they meet *any* of the following criteria (definitions defined above):

- A child participates in hazardous economic activity
- A child is potentially a bonded laborer
- A child is potentially a trafficked person and in the household roster[8]
- A child is economically activity and reports more than 8 hours a day in a typical day last week

[8] Children recorded in the migrant survey alone cannot be included in the child labor definition as we do not have enough information to identify whether they are child laborers in the location where they reside.

- A child is working more than full time
- A child is economically active and does not attend school

The project codes children below the age of 15 as a child labor if they meet any of the above criteria. In addition, a child below the age of 15 is a child laborer if they are economically active unless the economically active child satisfies *all* of the following criteria:

- The child is economically active in a location where only family members are employed[9]
- The child does not participate in an hazardous activity
- The child is not potentially a bonded laborer
- The child is not potentially a trafficked person
- The child does not report more than 8 hours a day in economic activity in a typical day last week
- The child does not engage in economic activity between the hours of 10pm and 6am in a typical day last week
- The child is not economically active for more than 40 hours per week according to the household roster response
- The child attends school

4. Qualitative Component

To complement the randomized controlled trial evaluation of the Department of Labor and Employment's (DOLE) KASAMA Program, Innovations for Poverty Action (IPA) will also include a qualitative component. The purpose of this exercise is to gain more insight into beneficiaries' experience with KASAMA to assist in explaining and interpreting the findings of a study that is primarily quantitative in nature. In addition, the results of the qualitative component can be utilized while disseminating the study's findings; although quantifying the program's impact is critical for any cost-effectiveness analysis, personal stories of the impact the program has on beneficiaries is often more salient than numbers alone and can allow for a more effective dissemination strategy.

In order to carry out this research, the team's Field Manager, under the oversight of the Research Associate, will conduct semi-structured interviews with select KASAMA implementers and beneficiaries. Unlike the structured questionnaires used during the baseline and endline surveys, the semi-structured interviews will be conducted with a more open framework to allow for focused, conversational, two-way communication with key informants. The Field Manager will have a list of questions to help guide the interview, helping keep the interview focused while not being constrained to any particularly rigid format.

There are comparative advantages to using semi-structured interviews to complement quantitative research. First, using an open framework can help provide new perspectives of ways the intervention is experienced. Also, it can be easier to build report with the

[9] As we do not anticipate contact with child employers where work permits would be required, we do not ask about the work permit status of employment.

respondent given the nature of the interview allows more freedom to express views in their own terms. Thus, such interviews may allow respondents to more easily discuss sensitive issues and in more depth.

As with interviews during the baseline and endline surveys, all information will be kept confidential and comply with Institutional Review Board protocols. No personally identifiable information will be attached to any of the data collected.

5. Work Plan
See *Appendix B.*.

Appendix A: Results Framework

Level	Outputs	Intermediate Outcomes			Project Objective
Objectives	**O1: Enterprise support provided** **Supporting results:** O1.1 In-kind transfers made to beneficiaries to support enterprises O1.2 Social preparation and optional, demand-driven enterprise trainings conducted **O2: Beneficiaries commit to stop child labor within the household** **Supporting results:** O2.1 Beneficiaries read and sign DOLE's commitment form to end child labor within their household	**IO1: Growth in earning opportunities within the home** **Supporting results:** IO1.1 Increased household income 1O1.2 Change in employment opportunities	**IO3: Diminished economic motives that lead to child labor** **Supporting Results:** IO3.1 Liquidity constraints relaxed IO3.2 Subsistence constraints relaxed IO3.3 Changed perception that child labor unnecessary IO3.4 Increase in household goods where child time is complimentary **IO4: Increase in economic activity** IO4.1: Increased household enterprises	**IO5: Diversion away from child labor** **Supporting Results:** IO5.1 Reduction of child's time dedicated to child labor IO5.2 Increase in child's time toward non-child labor related activities **IO6: Increased demand for alternatives to work** IO6.1 Increased school attendance among children	**Reduction in the incidence of child labor and children at risk**
	Maximum six months, commencing in March 2016	Occurs immediately upon transfer (commencing March 2016). Sustains going forward through January 2018 Endline	Measurable possibly immediately but almost certainly within 6 months of transfer. Sustains going forward through January 2018 Endline	Measurable within 6 months of transfer. Sustains going forward through January 2018 Endline	Measured 2 years after baseline in January 2018
Assumptions	KASAMA activities have sufficient funding DOLE has human capacity to administer the intervention Local government units (LGUs) supportive of the activities and allow DOLE to administer benefits Beneficiaries sufficiently understand the term "child labor"	Asset received is maintained (e.g. livestock does not die) Household understands how to make asset productive Market exists for good or service produced	Increased income sufficient enough to impact resulting intermediary outcomes	Parents value alternatives to work for children (e.g. schooling) Sufficient access to alternatives such as schooling New economic activities don't increase the demand for child labor	

	and take written commitments seriously	No major external shocks occur (e.g. natural disasters)		The parents are the primary decision-makers over the child's time allocation	

Appendix B: Work Plan

	Dates	Task	Activity
		1.0	**EVALUATION SET-UP**
2015	28-Aug	Deliverable	Contact information of Grantee provided to USDOL
	28-Aug	1.1	Launch event with DOLE and U.S. Embassy
	11-Sep	Deliverable	Written notification that key personnel have begun work on the project
	30-Oct	Deliverable	Negotiated Indirect Cost Rate Agreement (NICRA) Proposal
	Start: 12-Oct	1.2	Principal Investigator Philippines visit to refine design and implementation plan
	Start: 12-Oct	1.3	Preliminary field visits and focus group discussions with local government officials and implementation partners
	Start: 12-Oct	1.4	Capacity building sessions in impact evaluation for government officials
	15-Oct	1.5	Hire full-time Research Associate for project
	19-Oct	Deliverable	Draft work plan
	Start: 19-Oct	1.6	Questionnaire development and pilot
	31-Oct	Deliverable	Federal Financial Report (FFR)
	26-Nov	Deliverable	Final work plan and draft evaluation design plan
	18-Dec	Deliverable	Final evaluation design plan
	18-Dec	Deliverable	Draft baseline survey tools and training materials, IRB approval
		2.0	**BASELINE SURVEY & MONITORING**
	Start: 4-Jan	2.1	Survey team recruitment and training
	10-Jan	Deliverable	Final baseline survey tools (instruments, data analysis plan, informed consent and protocols used during the survey, training materials, IRB approval)
	Start: 9-Feb	2.2	Conduct baseline survey. Estimated completion: April 2016
	31-Jan	Deliverable	FFR
2016	Start: 4-May	2.3	Begin monitoring compliance
	Start: 1-May	2.4	Data cleaning and analysis of baseline data
	30-Apr	Deliverable	FFR, Technical Progress Report (TPR), and updated work plan
	30-Jul	Deliverable	FFR
	29-Sep	Deliverable	Draft baseline survey report package and qualitative report
	28-Oct	Deliverable	Final baseline survey report package and qualitative report
	30-Oct	Deliverable	FFR, TPR, and updated work plan
2017	31-Jan	Deliverable	FFR
	28-Apr	Deliverable	Intervention monitoring report

		30-Apr	Deliverable	FFR, Technical Progress Report (TPR), and updated work plan
		30-Jul	Deliverable	FFR
		30-Oct	Deliverable	FFR, TPR, and updated work plan
			3.0	**ENDLINE SURVEY**
	Start:	1-Oct	3.1	Refine and pilot endline survey instruments
2018	Start:	2-Jan	3.2	Survey team recruitment and training
		12-Jan	Deliverable	Final survey tools submitted
	Start:	9-Feb	3.3	Conduct endline survey. Estimated completion: April 2018
		31-Jan	Deliverable	FFR
			4.0	**DATA ANALYSIS AND REPORT WRITING**
	Start:	1-Apr	4.1	Data cleaning and analysis
		30-Apr	Deliverable	FFR, TPR, and updated work plan
		30-Jun	Deliverable	Government Property Inventory Disposition Request
		30-Jul	Deliverable	FFR
		30-Aug	Deliverable	Draft follow-up survey report package
		30-Sep	Deliverable	Public-use datasets, log of analyses, data crosswalks, data tables
				Draft final analysis and results summary report
			5.0	**DISSEMINATION**
	Start:	1-Sep	5.1	Dissemination event
		30-Oct	Deliverable	Final follow-up survey report package
				Baseline and follow-up survey dataset
				Final analysis and results summary report
				FFR, TPR, and updated work plan
2019		30-Jan	Deliverable	Closeout Documents checklist; final TPR; final FFR; Closeout Financial Form
				Recipient's Release Form; Government Property Closeout Inventory Certification

	Dates	Task	Activity
		1.0	**EVALUATION SET-UP**
2015	28-Aug	Deliverable	Contact information of Grantee provided to USDOL
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	11-Sep	Deliverable	Written notification that key personnel have begun work on the project
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	Start: 12-Oct	1.4	Capacity building sessions in impact evaluation for government officials
	15-Oct	1.5	Hire full-time Research Associate for project
	19-Oct	Deliverable	Draft work plan
	Start: 19-Oct	1.6	Questionnaire development and pilot
	31-Oct	Deliverable	Federal Financial Report (FFR)
	26-Nov	Deliverable	Final work plan and draft evaluation design plan
	18-Dec	Deliverable	Final evaluation design plan
	18-Dec	Deliverable	Draft baseline survey tools and training materials, IRB approval
		2.0	**BASELINE SURVEY & MONITORING**
	Start: 4-Jan	2.1	Survey team recruitment and training
	10-Jan	Deliverable	Final baseline survey tools (instruments, data analysis plan, informed consent and protocols used during the survey, training materials, IRB approval)
	Start: 11-Jan	2.2	Conduct baseline survey. Estimated completion: February
	31-Jan	Deliverable	FFR
2016	Start: 1-Mar	2.3	Begin monitoring compliance
	Start: 7-Mar	2.4	Data cleaning and analysis of baseline data
	30-Apr	Deliverable	FFR, Technical Progress Report (TPR), and updated work plan
	30-Jul	Deliverable	FFR
	29-Sep	Deliverable	Draft baseline survey report package and qualitative report
	28-Oct	Deliverable	Final baseline survey report package and qualitative report
	30-Oct	Deliverable	FFR, TPR, and updated work plan
	31-Jan	Deliverable	FFR
	28-Apr	Deliverable	Intervention monitoring report
2017	30-Apr	Deliverable	FFR, Technical Progress Report (TPR), and updated work plan
	30-Jul	Deliverable	FFR
	30-Oct	Deliverable	FFR, TPR, and updated work plan
		3.0	**ENDLINE SURVEY**
	Start: 1-Oct	3.1	Refine and pilot endline survey instruments
	Start: 2-Jan	3.2	Survey team recruitment and training
	12-Jan	Deliverable	Final survey tools submitted
	Start: 15-Jan	3.3	Conduct endline survey. Estimated completion: March 2018
	31-Jan	Deliverable	FFR
		4.0	**DATA ANALYSIS AND REPORT WRITING**