Progress Report on the DIME-GAFSP Collaboration, FY2013

In an effort to test innovations, build the knowledge base and ensure effectiveness of its investments, the GAFSP Steering Committee (SC) elected to conduct rigorous impact evaluations (IE) on a portion of its portfolio. Rigorous IEs assess the causal impact of a program on the livelihoods of project participants and allows for alternative implementation strategies to be tested side-by-side. The vision is to help projects increase their development impact by allowing for evidence-based course corrections over the life of a project.

The GAFSP selected DIME to conduct rigorous impact evaluations on a selected subset of projects. DIME is currently working on rigorous impact evaluations for GAFSP projects in Rwanda, Bangladesh, Haiti, Mongolia, Nepal, and Liberia.

This progress report provides an update on activities for the DIME-GAFSP impact evaluation portfolio during the fiscal year 2013 (July 2012-June2013). This portfolio is managed and implemented by Florence Kondylis (TTL for GAFSP-DIME), Daniel Stein (Economist) and Maria Jones (Research Analyst).

SUMMARY

In FY13, DIME's work on the GASFP portfolio has proceeded rapidly. All projects (excluding Niger and Liberia) are staffed by a full-time field coordinator. In FY13, DIME undertook 3 concept note reviews, 3 household surveys, 2 baseline reports, and 13 missions.

Specific milestones include:

- Bangladesh: The (virtual) concept note review was completed in January 2013. The baseline survey was
 completed and analyzed, with a presentation on the data delivered to the government in May 2013. The
 first follow-up survey began in late FY13, and is currently underway.
- **Rwanda**: The concept note review was completed, with the final cleared version of the note circulated on March 15. The baseline report, incorporating all comments from the project team, was released and circulated on March 29. The first follow-up survey began in late FY13, and is currently underway.
- Mongolia: The concept note review was completed, with the final cleared version of the note circulated on May 20. Collection of baseline data began in late FY13, and will complete in early FY14.
- Haiti: DIME designed and supported an impact evaluation workshop run by the Haitian Ministry of Agriculture (MARNDR) from March 20-22 in Haiti. The (virtual) concept note review began in May 2013, and the final concept note will be circulated in July 2013. Baseline survey procurement is underway, and the data collection will take place in the first half of FY14.
- **Nepal**: The impact evaluation design continues to be finalized. A concept note has been drafted and will be reviewed in FY14. The baseline survey procurement began in late FY13, and the baseline will be completed in the first half of FY14.
- **Niger/Liberia**: Due to security concerns in the region, the Niger evaluation was suspended for most of FY13, and was eventually dropped from the portfolio. It was replaced in late FY13 by Liberia, and the DIME team has undertaken initial conversations with the Liberia team.

The total disbursement in this period was \$962,713.34, with additional commitments for data collection and supervision of \$ 429,613.06, for a total of \$1,392,326.40 out of a total yearly budget of \$2,250,375.90 (see attached budget detailing actual disbursements and commitments).

The primary reason that disbursements were lower than projected was that \$500,000 was projected to be spent or committed on baseline surveys in Haiti and Nepal. In both these cases the baseline survey was delayed due to delays in project implementation that were beyond DIME's control. However, procurement for both surveys began in late FY13, and the funds should be committed in early FY14.

The rest of the disbursement gap comes from a variety of unforeseen cost-savings opportunities. For instance, total travel costs were much less than projected due to the team's ability to combine multiple missions, spreading trips over multiple charge codes. The \$45,000 projected to be spent on a website was not necessary, as the new DIME-GAFSP website will be part of an overhaul of the DIME website that was paid with other funds.² The majority of research assistance for GAFSP projects was provided by consultants working on the general DIME-Aadapt³ program, which resulted in fewer charges to GAFSP.

Overall, the lack of disbursement reflects small changes in the timeline / implementation arrangement of two baseline surveys, operational delays in project preparation/implementation, and the fact that DIME took advantage of unforeseen cost-saving opportunities when they arose.

The next section presents a country-specific review of the progress achieved in the past year.

¹ In Haiti, the sampling frame for the survey will rely on completion of a farmer registry by the project. The registration process is now scheduled to begin in September 2014. In Nepal, the baseline survey cannot begin until project areas (VDCs) are selected. This is now scheduled to happen in August 2014.

² The new website will be live in early 2014.

³ Aadapt ("Agricultural Adaptations") is DIME's portfolio of impact evaluations related to agriculture and climate change.

BANGLADESH: Integated Agricultural Productivity Program (IAPP)

OVERALL IMPACT

METHODOLOGY

Randomized Phase-in

- Treatment villages receive IAPP interventions in 2012
- Short-term control villages receive IAPP in 2014
- Long-term control villages receive IAPP in 2016

RESEARCH QUESTIONS

- To what extent does the FFS approach cause increased and sustained technology adoption?
- What level of adoption is driven from increased subsidies versus knowledge and learning?
- What are the differential effects for male vs. female group members?
- What are the long versus short run effects of IAPP? Do income effects allow continued adoption of improved crops?

DATA COLLECTION

Baseline [Aug-Oct 2012]

Paper questionnaire with field data entry

First follow-up [Jun - Jul 2013]

Electronic data collection

Second follow-up [Jun-Jul 2014]

Electronic data collection

Endline [Jun - Jul 2016]

Electronic data collection

The Impact Evaluation (IE) of the IAPP project will contribute to understanding the drivers of technology adoption through two lenses. First, the overall project approach is being evaluated using a randomized phase-in of project villages. Second, the "Demonstration Plot Evaluation" is testing innovative implementation modalities within the approach to understand what mechanisms can deliver higher results.

Concept note: The Concept Note was reviewed by Daniel Gilligan, IFPRI; Rachel Heath, University of Washington; Ousmane Seck, SASDL; and Jessica Leino, SASSP. The review was chaired by Andras Horvai, Country Program Coordinator. The Concept Note was revised to reflect reviewer comments, and re-circulated on January 3, for the conclusion of the virtual review.

Baseline Survey: Maria Jones presented baseline findings to the joint government-WB project team during a supervision mission in May 2013. Feedback and comments received were incorporated into a full baseline report, which will be fully disseminated in the first quarter of FY14.

Missions: There were three missions to Bangladesh in FY13. Maria Jones travelled to Bangladesh for two weeks in August 2013 to support the launch of the baseline survey. Aaron Szott (DIME Field Coordinator) spent three weeks in Bangladesh in September to assist with supervision of the baseline survey. Maria Jones joined the WB supervision mission in May 2013 to present findings from the baseline survey and to prepare questionnaire design and the electronic survey instrument for the follow-up household survey.

Follow-up Survey: Data collection for the first follow-up survey for both the overall impact and the demonstration plot evaluation began in May 2013. The field work is being supervised by Cindy Sobieski, DIME Field Coordinator, and carried out by the NGO Innovations for Poverty Action (IPA), DIME's research partner in Bangladesh. The follow-up survey is being conducted

RESEARCH TEAM

<u>DIME-GAFSP Team</u>: Florence Kondylis, Senior Economist; Daniel Stein, Economist; Maria Jones, Research Analyst <u>External Researcher</u>: Mushfiq Mobarak, Yale University <u>Field Coordinator</u>: Cindy Sobieski, DIME <u>Data collection</u>: Innovations for Poverty Action. electronically, using Open Data Kit software and tablet computers. Data collection will finish in the first quarter of 2013. As data will be immediately available, a midterm impact evaluation report is expected in the first half of FY14.

Risks & Challenges: The political context in Bangladesh has made field work and data collection challenging. Frequent nationwide strikes have delayed data collection, but thus far have not otherwise compromised the impact evaluation activities.

DEMONSTRATION PLOT EVALUATION

METHODOLOGY

Randomized Control Trial (RCT) compares 3 approaches to demonstration plots (DPs)

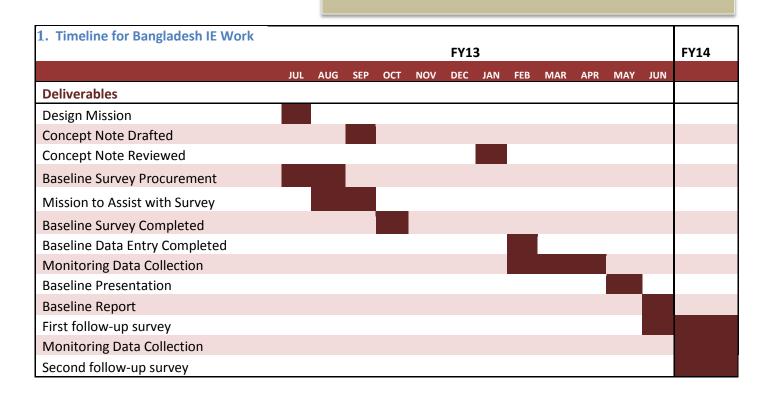
- Regular DPs: standard model
- Shared DPs: 2-6 farmers share demonstration plot
- Incentives for Self Demonstration: all farmer group members offered a small incentive to demonstrate on their own plots

RESEARCH QUESTIONS

- To what extent can "learning by doing" increase technology adoption over "learning by observing"?
- Which approach to demonstration plots results in the highest level of technology adoption?

DATA COLLECTION

Data will be collected on the same schedule as for the Overall Impact Evaluation



RWANDA: Land Husbandry, Water Harvesting & Hillside Irrigation (LWH)

OVERALL IMPACT

METHODOLOGY

Pairwise matching at watershed-level

- Treatment sites receive LWH interventions starting 2012
- Control sites do not participate in LWH

RESEARCH QUESTIONS

 What is the impact of the full package of LWH interventions on agricultural productivity, household income, and food security?

DATA COLLECTION

Baseline [May-Aug 2012]

 paper questionnaire with field-data entry, funded by LWH with technical support from DIME

First follow-up [May - Jun & Oct-Nov 2013]

electronic data collection

Second follow-up [Oct - Nov 2014]

Electronic data collection

Endline [Oct - Nov 2016]

• Electronic data collection

The Rwanda impact evaluation includes three main components: an overall impact evaluation of the LWH approach, a rural finance component testing new saving products for farmers and an agricultural extension component testing farmer feedback mechanisms.

Concept note: The Rwanda concept note review meeting was held on February 4, chaired by Achim Fock (Country Program Coordinator, acting on behalf of the Country Director, AFCKE). The concept note was revised to reflect written comments from peer reviewers and the additional feedback received during the review meeting. The final concept note was circulated in March 2013.

Missions: There were four missions to Rwanda in FY13. Florence Kondylis and Maria Jones travelled to Rwanda in September 2012, primarily to launch the agricultural extension component evaluation. Ritika D'Souza (DIME Field Coordinator) spent two weeks in Rwanda in November 2013, conducting a data analysis workshop for the M&E staff at the Ministry of Agriculture. Florence and Maria participated in the LWH Midterm Review in January 2013, to

present baseline statistics and share initial findings from the rural finance and agricultural extension evaluations with the project team and the Minister and P.S. of Agriculture. In June 2013, Maria Jones and Mushfiq Mobarak went on mission to Rwanda to launch a second phase of the rural finance related evaluation work and prepare for the follow-up household survey.

Baseline: A comprehensive
Baseline Report, revised to reflect
all comments and suggestions
from the government and project
team was released in March 2013.
A BBL on the LWH Baseline
Findings was held at the Rwanda

RESEARCH TEAM

<u>DIME-GAFSP Team</u>: Florence Kondylis, Senior Economist; Daniel Stein, Economist; Maria Jones, Research Analyst <u>External Researcher</u>: Mushfiq Mobarak, Yale University <u>Field Coordinator</u>: Jasmeen Batra, DIME

Data collection: Synovate Uganda

RURAL FINANCE EVALUTION (Phase 1)

METHODOLOGY

Randomized Control Trial with 3 treatment arms

- Targeted Savings Account (no withdrawal restrictions)
- Commitment Savings Account (withdrawals only allowed at times set by farmer on account opening)
- · Control: no new accounts offered

RESEARCH QUESTIONS

- What are the determinants of take up for the new saving products?
- Is the commitment savings product more effective than the targeted savings product in increasing the use of agricultural inputs and decreasing loans?
- Are withdrawal restrictions associated to significant welfare losses, and to what extent do they offset the benefits of the product in helping farmers invest in inputs?

DATA COLLECTION

RURAL FINANCE EVALUATION (Phase 2)

METHODOLOGY

Randomized Control Trial testing 4 variations of Commitment Savings Accounts:

- Fixed withdrawal penalty
- · Health shock exemption
- Agricultural shock exemption
- No withdrawal fee (announced privately)

The variations will be compared to each other and to a control group, which receives the budgeting exercise and financial literacy but no special accounts.

In addition, we will test SMS reminders as an encouragement to save.

RESEARCH QUESTIONS

What are the determinants of take up for the new saving products?

DATA COLLECTION

First follow-up [May - Jun & Oct-Nov 2013] → CAPI

Second follow-up [Oct – Nov 2014] → CAPI

Country Office in May 2013, with a video connection to Washington.

Rural Finance evaluation (Phase 1) update: Follow-up household data for all the rural finance groups is currently being collected, and the team is also working with the rural finance institutions to collect detailed transactions data. A midterm report on the first round of rural finance product testing will be shared with the project team in the second quarter of FY14, and a final report is expected in the third quarter.

Rural Finance evaluation (Phase 1) update: the IE team analyzed administrative data from the partner Rural Finance Organizations on take-up and utilization of the new savings products. Gender differences in product take up were most salient, and indicate that variations in product designs can have a large impact in lifting gender-specific barriers to saving. Based on these results, the team launched a second round of rural finance product testing, in the new LWH sites. For this phase of the rural finance testing, the team is collaborating with Mushfiq Mobarak, from Yale University. The first follow-up survey for this phase of the rural finance evaluation will take place in Q4 of FY14.

AGRICULTURAL EXTENSION EVALUTION

METHODOLOGY

Agricultural Extension Scorecards - Randomized Control Trial

- Treatment groups receive one of 3 types of scorecards: graphicbased, individual interview, or phone interviews
- Control: no scorecards

Farmer Feedback Loops - Randomized Control Trial

- Treatment 1: Farmer groups fill out logbook
- Treatment 2: toll-free hotline introduced
- Control: No new feedback loops

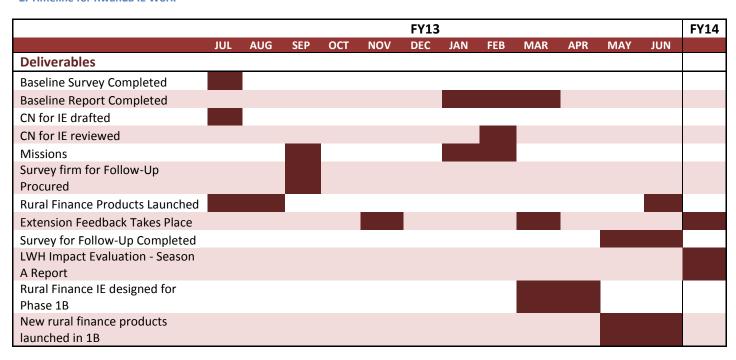
RESEARCH QUESTIONS

- Do scorecards empower farmers to demand better agricultural extension services? What type of scorecard is most cost-effective?
- Will new feedback tools lead to better service provision?
- Does the behavior of extension officers change when scorecards are introduced in their area?

Agricultural Extension evaluation update: two rounds of agricultural extension scorecards were completed in FY13, and brief reports on the results were shared with the LWH Team and One Acre Fund (implementing partner). Data on the feedback loops is currently being entered. A midterm report on the agricultural extension evaluation is expected in Q2 of FY14, and a final report in 03.

New directions: The LWH team is interested in adding an evaluation of the irrigation component. DIME has begun discussions with the irrigation team, and plans to finalize a design by the first half of FY14.

2. Timeline for Rwanda IE Work



HAITI: Project for Technology Transfer to Small Farmers (PTTA) & Relaunching Agriculture (RESEPAG II)

OVERALL IMPACT OF PTTA

METHODOLOGY

Randomized phase-in of project areas

- Treatment area residents can participate in PTTA in 2013
- Control areas residents are eligible for PTTA in phases, starting in 2014

RESEARCH QUESTIONS

- Can a single infusion of all necessary inputs for a technology result in sustainable improved yields?
- What are the short-term effects of the extensive assets provided by the project? What are the longer-term effects on learning, use of agricultural inputs, and capital accumulation?
- What is the overall impact of the PTTA on agricultural productivity, food security, and income?

DATA COLLECTION

Baseline [October-December 2013, expected] → Paper

First follow-up [Jun - July 2014]

Second follow-up [Nov - Dec 2014]

Third follow-up [Jun – July 2015]

Fourth follow-up [Nov - Dec 2015]

OVERALL IMPACT OF RESEPAG II

METHODOLOGY

Design forthcoming

GAFSP is supporting two projects in Haiti, both of which promote new agricultural technology to farmers, with the goal of increasing yields and food security. DIME agreed with the GAFSP Coordination Unit to focus on the Project for Technology Transfer to Small Farmers (PTTA) for the DIME-GAFSP Partnership. The PTTA project provides "packages" of vouchers to farmers, which are redeemable for goods and services necessary to adopt a more productive farming practice. Farmers are eligible to receive a package only once. The PTTA impact evaluation will test this "big push" theory for agricultural inputs by carefully measuring the effects of the packages both in the short and medium term. The PTTA IE is being conducted as a partnership between DIME and the Paris School of Economics (PSE). In FY13, the Ministry of Agriculture (MARNDAR) and World Bank teams for RESEPAG II decided to use their own project funds to finance an impact evaluation of RESEPAG II, and have asked DIME for technical assistance. DIME has begun working on developing an impact evaluation plan fro RESEPAG II.

PTTA Concept Note: During FY13, the design of the PTTA was finalized, and a concept note has been produced. In conjunction with the IDB and government teams, DIME has decided to concentrate the IE on measuring the effects of PTTA's promotion of technology for cultivating annual crops (rice, sweet potato), as the perennial crops are unlikely to show measurable effects over the life of the project. The government team plans to randomly phase in project activities in selected areas, allowing the IE to accurately measure their effects. The virtual concept note review began late in the FY, and the note will be finalized in early FY14.

Missions: There were 3 missions to Haiti in FY13: October (Daniel Stein and Jeremie Gignoux), February (Daniel Stein), March (Karen Macours and Daniel Stein), and May(Jeremie Gignoux). These missions served to finalize the design of the PTTA IE and re-start discussions on the RESEPAG II IE.

Baseline: The baseline questionnaire for the PTTA IE has been designed, and procurement of a baseline firm began in FY13. The PTTA intervention is demand-driven, meaning that participants are only selected after they have expressed interest in the program. The implication for the evaluation is that only farmers who have registered for program support will be sampled. Hence, the baseline survey can only begin after the farmer registry is

completed in the evaluation areas. Based on current estimates, this will be in October or November 2013.

Capacity building: At the request of MARNDR, DIME helped organize an impact evaluation workshop in Haiti on March 20-22. The workshop was attended by 55 participants from government, NGOs, and international organizations. It was hosted by MARNDR using funds from the PTTA and RESEPAG II projects. Daniel Stein, Karen Macours, and Sebastien Gachot from the DIME evaluation team attended the workshop, and assisted MARNDR by delivering impact evaluation training sessions. These included methods sessions as well as in-depth presentations on the evaluation plans for PTTA and RESEPAG II, followed by lively discussion with the audience.

RESEPAG II IE: MARNDAR and World Bank teams for RESEPAG II have decided to use their own project funds to finance an impact evaluation of RESEPAG II, and have asked DIME for technical assistance. Due to the demand-driven nature of RESEPAG II, it is not possible to make final decisions on the IE design until applications for project support are received from farmer organizations. However, a preliminary plan has been developed and preparations for the baseline survey will begin shortly.

Risks & Challenges: The political context in Haiti makes impact evaluation work challenging, specifically due to the risk of political unrest and very high operating costs. First, the

RESEARCH TEAM

DIME-GAFSP Team: Florence Kondylis, Senior Economist; Dan Stein, Economist; Maria Jones, Research Analyst External Researchers: Karen Macours & Jeremie Gignoux, Paris School of Economics Field Coordinator: Sebastien Gachot, Paris School of Economics

government team is supportive of impact evaluation and has agreed to the randomized phase-in in principal, but reserves the right to cancel the randomization if it causes unrest in the project areas. The geographic phase-in is planned to extend over multiple seasons, but it is not clear how long it will last in practice. As a result, the IE team will need to collect frequent follow-up surveys, in case the integrity of the control group is compromised. Second, costs in Haiti are very high. The competitive bids for the survey work show a per-questionnaire cost of around \$114, which is much higher than the cost of surveys in other countries. Implementation challenges require frequent data collection to ensure the integrity of the control group; however, this will make the impact evaluation run significantly over budget. Sample size is still under discussion, yet current estimates put the cost of the evaluation at approximately \$960,000 dollars.

3. Timeline for Haiti IE Work

			FY13	3					FY14
	JUL AUG SEP	OCT NO	V DEC	JAN	FEB	MAR	APR N	AY JUN	
Deliverables									
Missions									
New Field Coordinator Hired									
PTTA									
Baseline Procurement									
Concept Note Review									
Baseline Survey Completed									
Baseline Report Completed									
RESEPAG II									
Funding Allocated for IE									
Baseline Procurement									
Final IE Design									
Baseline Survey Completed									
Baseline Report Completed									

MONGOLIA: Livestock & Agricultural Marketing Project (LAMP)

OVERALL IMPACT

METHODOLOGY

Randomized control trial with pairwise matching

- Treatment: soums receive LAMP interventions
- Control: *soums* will not receive LAMP unless the government decides to scale up LAMP
- Eligible soums were grouped into matched pairs based on observable characteristics, then divided into treatment and control by lottery

RESEARCH QUESTIONS

- What is the impact of LAMP investments on HH income from livestock and horticultural products? On output of livestock products (meat, milk, wool, cashmere)? On investments in livestock quality?
- What are the effects of the LAMP on herd sizes and compositions? On the share of marketed products going through contracts and established companies?

DATA COLLECTION

Baseline [April – July 2012]

Midline [April-July 2014]

Endline [April - June 2017]

All rounds have electronic data collection.

The impact evaluation of Mongolia uses random assignment of program areas to causally determine the impact of LAMP as a whole. The project became effective in April 2012, with activities on the ground beginning in FY14.

Concept Note: The concept note review (Chaired by Klaus Rohland, EACCF) took place in April, with the final, cleared version circulated in May.

Missions: Daniel Stein visited Mongolia in April to help pilot and launch the baseline survey.

Baseline: DIME began the baseline survey in April, and completed in early July. The survey was conducted electronically using tablets, which means the data will be rapidly available for analysis.

RESEARCH TEAM

<u>DIME-GAFSP Team</u>: Florence Kondylis, Senior Economist; Dan Stein, Economist; Maria Jones, Research Analyst

<u>Field Coordinator</u>: Aaron Szott, DIME <u>Data Collection</u>: Mongolia Center for Development Studies & MEC LLC

4. Timeline for Mongolia IE Work

	FY13								
	JUL AUG SEP	OCT NOV	DEC JAN	FEB	MAR A	PR MAY	/ JUN		
Deliverables									
Concept Note Drafted									
Concept Note Reviewed									
Baseline Procurement									
Baseline Completed									
Baseline Report Completed									

NEPAL: Agriculture & Food Security Project (AFSP)

The AFSP project became effective in FY13, and project activities will begin in FY14. The general design of the IE has been agreed upon with the project team, though some details are still being worked out. The government would like to use impact evaluation to understand how supply-side nutritional interventions (kitchen gardens, livestock, etc) can be most effectively combined with demand side interventions (behavioral change communication, nutritional education, etc.).

Concept Note: DIME drafted the IE concept note, based on discussions with the government and operational team during the February 2013 mission. As final details of the design are still to be clarified, the concept note will be completed and reviewed in FY14.

Missions: Daniel Stein and Slesh Shrestha visited Nepal in September to initiate discussions with the government. Daniel Stein and Soham Sen returned to Nepal in February to make further progress on the IE design and introduce the new DIME field coordinator, Ritika D'Souza.

Baseline: DIME started procurement for the baseline survey in late FY13. The baseline cannot begin until project areas are chosen, which is expected to happen in August 2013. The baseline survey is expected to begin in Sept 2013.

OVERALL IMPACT & Nutrition Evaluation

METHODOLOGY

Randomized phase-in at the level of the village development committee (VDC)

- Treatment VDCs receive AFSP interventions starting in 2013
- Control VDCs receive AFSP interventions no earlier than 2014

RESEARCH QUESTIONS

- What is the impact of AFSP on agricultural productivity, food security, and household income?
- What is the relative effect of supply versus demand side interventions on nutrition practices?

DATA COLLECTION

Baseline [Aug-Oct 2013]

Method to be determined

Follow-up data collection timeline to be determined after project phased-in implementation schedule is finalized.

RESEARCH TEAM

DIME-GAFSP Team: Florence Kondylis, Senior Economist; Dan Stein,

Economist; Maria Jones, Research Analyst

Additional Researchers: Soham Sen, World Bank (SASSP); Slesh

Shrestha, National University of Singapore <u>Field Coordinator</u>: Ritika D'Souza, DIME

5. Timeline for Nepal IE Work

	FY13										FY14		
	JUL	AUG	SEP	ОСТ	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
Deliverables													
Missions													
Field Coordinator Hired													
Concept Note Drafted													
Concept Note Reviewed													
Baseline Survey Procurement													
Baseline Survey Completed													
Baseline Report Completed													