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Final Performance Evaluation of the Agriculture Program of the Community Livelihoods Project (CLP)

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Cover photo: Horticulture terraces in Raymah governorate, Al-Gabeen district, where new techniques in the use of modern drip irrigation systems and modern farming methods were introduced by the USAID Community Livelihood Project (CLP), resulting in a significant impact in terms of productivity and reduction in labor and water usage, as well as improvements in the quality of production through the rational use of agrochemicals. Farmers ingeniously adopted CLP greenhouse technology to make lower cost versions with locally purchased materials (the green, elongated shapes visible in the center-left of the photograph). Photo credit: Jamal Baathar.

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LIST OF ACRONYMS AND ABBREVIATIONS

ADDR	Average daily disbursement rate
ADS	Automated Directives System
AOR	Agreement Officer Representative
AOTR	Agreement Officer Technical Representative
AR	Annual Report
BHS	Basic Health Services Project (USAID)
CA	Cooperative Agreement
CASH	Yemen Competitive Agriculture Systems For High Value Crops
CDCS	Country Development Cooperative Strategy
CH	Clearinghouse
CLP	Community Livelihoods Project
COP	Chief of Party
CSO	Civil Society Organization
DQA	Data Quality Assessment
FBC	Farm Business Center
FGD	Focus Group Discussion
GDA	Global Development Alliance
HR	Human Resources
IBTCI	International Business and Technical Consultants Inc.
IFAD	International Fund for Agriculture Development
IT	Information Technology
LSGA	Limited Scope Grant Agreement
M&E	Monitoring and Evaluation
MAI	Ministry of Agriculture and Irrigation
MOLA	Ministry of Local Administration
MoPIC	Ministry of Planning and International Cooperation
MOU	Memorandum of Understanding
NGO	Non-Governmental Organization
OTI	Office of Transition Initiatives (USAID)
PIRS	Performance Indicators Reference Sheet
PMEP	Project Monitoring and Evaluation Plan
PMP	Performance Management Plan
QR	Quarterly Report
RFA	Request for Application
RGP	Responsive Governance Project (USAID)
ROYG	Republic of Yemen Government
SOW	Scope of Work
SPSS	Statistical Package for Social Sciences
STTA	Short-Term Technical Assistance
TPM	Third Party Monitoring
USAID	United States Agency for International Development
USG	United States Government
WP	Work Plan

YASP	Yemen Agriculture Support Program (USAID)

EXECUTIVE SUMMARY

YMEP was tasked by USAID to undertake a final evaluation of the Community Livelihoods Project (CLP) Agriculture activities to assess the project performance from development to implementation, and identify findings and recommendations that can be useful for future USAID interventions in this sector.

The evaluation was carried out with a team of international and local consultants under YMEP oversight and with logistic support from its offices in Sana'a and Aden. The research methodology was shared with USAID for its feedback, and briefings kept USAID informed of progress.

Using quantitative and qualitative instruments, the team assessed the project approach, strategy, systems, operations, and results. Conclusions and recommendations were formulated accordingly, based on empirical evidence gleaned from available data as well as from data generated from the evaluation's own field work.

Findings and conclusions

History: The history and timeline of the project were constructed with a focus on what is specific to the agriculture sector within the CLP and identify distinct events and milestones that marked its progress negatively or positively. The project benefited from an earlier start than the rest of the CLP components and was built upon previous projects. In consequence, the agriculture program failed to integrate with other components and deviated from the stabilization approach that was stated in the cooperative agreement.

The CLP agriculture program was challenged right from the start to reconcile different priorities: take a new grass-roots, community-focused approach on one hand, or continue to work through the Ministries at the Central and Governorate levels; and reconciling its agriculture development priority with integrating an urban focus.

Design: The adequacy of the original design for the first phase of the project cannot be established since project was not implemented in accordance with the original design. In practice, the implementation was characterized by short-term small grants on the one hand, as per the OTI model of interventions, and a focus on urban areas on the other hand. These programmatic focal areas are not considered adequate approaches for agriculture sector interventions that need to be sustained over a significant period, be part of a coherent approach and not occur in a fragmented way, and need to address agriculture priorities in terms of increasing productivity and improving the livelihoods of farmers. The design of the subsequent development phase to this program was properly based on a value chain approach, but lacked a realistic timeline, a clear vision about targets and accessibility, an adequate mechanism for knowledge sharing and community based support, and an adequate monitoring plan.

Implementation and performance: CLP clearly had a positive impact on productivity, overall production, and improved water use efficiency. Outcomes observed among farmers included high technology application that yielded significant increases in production. Farmers using the CLP drip irrigation technology cited a 50 percent decrease in irrigation costs (water and labor) and an 80 percent decrease in amount of water required. Accessibility to the technology was an issue due to its high cost but other stakeholders have committed to support the dissemination of this technology. CLP activities are clearly having an impact, the introduced technology is seen as effective in both saving money and water and is being adopted and promoted by large scale farmers, the Republic of Yemen Government, and other Donors.

The overall level of adequacy in planning was a decent 70%, lowered mainly by a weak score on ability to set timelines and realistic milestones. The PMEP process was improved mainly toward the last part of the

project, and outcome indicators specific to agriculture were developed only toward the end of the project. The monitoring system was improved by adding personnel and setting up guidelines, and the project cooperated positively with USAID and YMEP in applying lessons learned from Third Party Monitoring (TPM) and from external evaluations.

The level of actual funding was 68% of the approved level. The direct portion of the funds (5.76M or 55%) financed 71 grants; an average of about 150,000 per grant, and at a cost of US$ 9 per beneficiary. The significant under-expenditure, and the high level of indirect costs have contributed to further reduce the project's ability to make a bigger impact.

While CLP used both grants and direct implementation, the change from one to the other was not related to differences in effectiveness, and CLP often managed grants as if they were direct implementation in order to maintain more control. Opportunities for community participation and ownership through the grant system as well as capacity building of agriculture CSOs were not fully exploited, although the interventions were highly praised and were needed by beneficiaries.

While working with the MAI extension network provided a degree of capacity building for sustainability, and although the interventions were highly responsive to local needs, and were highly appreciated, the degree of involvement and participation of partners in the processes of planning implementation and monitoring was less than optimal and was not conducive to ownership.

CLP planning for sustainability was adequate, as the necessary ingredients were present, but when it came to implementation, not all of the planned elements required for sustainability were implemented, primarily for fear of losing control and for lack of time. The main assurance of sustainability is that USAID next agriculture program will build upon and disseminate CLP achievements.

Outputs and outcomes: Given the demonstration nature of the project development phase, it would not be reasonable to expect a sector-wide impact or a significant impact on communities' livelihoods. On the other hand, the livelihoods of direct beneficiaries and their families were positively impacted in a limited number of governorates and districts.

Comparisons of outputs to plans were often rendered difficult by the lack of clear output targets, and the lack of alignment between work-plans and subsequent periodic reporting. An outcome indicator was calculated by the evaluation team in terms of number of hectares improved as a result of CLP technologies, using the number of beneficiaries and adoption rates also as calculated by the evaluation team.

The overall number of beneficiaries from various interventions may have been overestimated by 14%, but there is also an underestimation due to the fact that available data did not cover the last year of the project and some CLP results were omitted from the count.

Adopted changes led to impressive increases in the volume of production of specific crops, and the preliminary outcome in terms of the surface area of land under new technologies is about 40,000 hectares. When compared to the overall cultivated surfaces in the targeted governorates, this represents around 10 % of cultivated land in the target governorates.

Extension networks in targeted governorates benefited from support, and farmers largely acknowledged the positive change in extension services in terms of frequency of visits and quality of advice and help, but the level of support is far from sufficient to properly rehabilitate the network.

M&E: The M&E systems were initially weak but gradually improved during the implementation period; however these improvements could not compensate for the lack of adequate design at the start and the lack of a baseline. Output and outcome results of the agriculture sector were not defined until later in the project, as the sector was initially embedded in the economic development component. CLP would have been better managed and monitored had there been output indicators with timelines and annual targets as well as end-of-project outcome indicators. M&E implementation was 18% for monitoring and 30% for final evaluations, undoubtedly affected by the security concerns and the inability to execute as many field

visits for M&E as were required by CLP guidelines; in spite of this, CLP coordinators could have played a more systematic role, had the M&E unit and CLP Agriculture Unit worked more closely together.

Sustainability: Sustainability was part of the design but implementation lagged behind. CLP did not plan adequately for time needed for dissemination, nor for developing mechanisms to make the new technologies more accessible, such as through credit or cooperative schemes.

There was no capability to collect information on projects subsequent to their completion for follow-up support, or to find out if they were continuing. The potential for MAI extension workers and local farmer associations to take over this task was not actualized and is recognizably difficult to do in the absence of continued support to these entities given their actual lack of capacity.

Recommendations:

A number of recommendations are proposed, particularly with an eye on what can be taken on board by the new USAID agriculture project. These are presented under Do's and Don'ts as requested by USAID:

Do's:

1. Continue to carry out dissemination and promotion of the new technologies, and reinforce adoption among farmers of such technologies.
2. Verify whether sustainability clauses in grant agreements under previous projects (i.e., CLP) were implemented.
3. The new projects should be based on participation of beneficiaries and should use methods and techniques to promote ownership, such as support groups to provide farmers and MAI regional staff with learning and solutions through peer-to-peer exchange.
4. Future program design should include complementary activities, such as working to create and strengthen farmers associations; innovative financial mechanisms; and introducing "middle" technologies.
5. USAID should require inclusion of financial aspects of the project in all future Performance Management and Evaluation Plans (PMEP).
6. Cross-cutting themes of poverty and gender should be integrated in future projects to ensure project impacts are also conducive to reducing poverty and improving gender awareness.
7. Strengthen MAI extension services and encourage MAI to increase the percentage of female extension agents.
8. Hire and train rural female staff in field management positions, and send a clear message that the project does not subscribe to a hiring practice that diminishes the role of women.
9. Set up alternative sources of sustainable support for the farmers, such as Farm Service Centers using a model already developed by USAID in Ethiopia.
10. Invest in providing training on new practices in the basic curriculum of the agriculture staff.

Don'ts:

1. Do not drop integration from the agenda.
2. No new activities or technologies without a clear dissemination plan.
3. Do not demonstrate new solutions to potential beneficiaries without a plan to make them accessible.
4. No assistance without building agriculture CSO capacity.
5. Do not eschew grants as an implementation mechanism: grants can be an efficient mechanism and can contribute to sustainability if accompanied by institutional strengthening support, when required.
6. Do not use a cookie-cutter approach when introducing new agricultural technologies.
7. Do not introduce new practices and products without proper testing with the target site and population.
8. No subsidies without adequate education about their limited scope and temporary nature.
9. Do not bypass local authorities, local leaders and organizations.

10. Do not diminish credibility by cancelling or changing activities without proper information.

Annexes to the report provide details of the evaluation scope of work and methodology and more details on some topics presented briefly in the main report. In particular, the results of the focus group discussions are presented in a summary form organized according to the CLP intervention categories (Coffee, Horticulture, Honey, Home Gardens and Women's activities), in addition to reports on FG discussions with the MAI officials of the governorates.

1. INTRODUCTION AND BACKGROUND

The Community Livelihoods Project (CLP) is a multi-sectoral project implemented in Yemen by the US-based firm Creative Associates and funded by USAID. CLP commenced implementation in July 2010 and has carried out interventions in the areas of health, education and agriculture. The agriculture program, a US$15.4 million component of the overall CLP, completed implementation in September 2014.

The purpose of this performance evaluation is to assess the timeliness and effectiveness of the CLP agricultural program in order to provide USAID with recommendations to be considered while designing new agricultural programs, as well as to document the factors that have contributed to successful implementation, the challenges CLP has faced, and the actions taken by CLP to address those challenges.

The Yemen Monitoring and Evaluation Project (YMEP) carried out this evaluation as per the Scope of Work (attached in Annex 1).

2. RESEARCH METHODS

The methodology used during the evaluation included a desk review of relevant program documents and data, as listed in Annex 6, and field work carried out in Yemen on CLP activity sites, consisting of individual interviews or focus group discussions with participants at all levels of the program. These sources included implementer staff, grantees, sub-grantee beneficiaries, USAID, YMEP and the ROYG. A structured farmer questionnaire was also administered to a sample of the focus group participants and processed in Statistical Package for Social Sciences (SPSS), to provide quantitative data on production and impact of technologies.

Twenty-six (26) focus group discussions were held with male and female farmers in five governorates, selected on the basis of level of CLP disbursements and security/safety considerations: Sana'a, Ibb, Lahj, Raymah and Taiz. One focus group guide, related to production outputs and outcomes, was developed for the farmers (male and female). A second focus group guide for female farmers was developed to ascertain the opinions and perception of women on the non-productive livelihood impacts of the CLP interventions.

The CLP Coordinator for each targeted governorate helped with inviting the selected participants to the focus group meetings, which took place on farms or at agriculture associations and women's centers.

Two rounds of focus group discussions were conducted. The first round of focus groups was hurriedly organized and implemented, in an attempt to complete the focus groups in a brief, two week period before the original end-date of the agricultural program and before the beginning of Ramadan. The results of this initial round of focus groups were not sufficiently detailed and were found lacking in terms of quantifiable outcomes. In response, the initial version of the discussion guides was refined and improved and a second round of focus groups was conducted.

Two more focus groups were held – one in Aden and one in Sana'a – with officials of the Ministry of Agriculture and Irrigation (MAI) and CSO representatives. A separate focus group discussion guide was prepared for those discussion groups. The guides were first developed in English and then translated into Arabic. English versions of all three FG discussion guides are attached in Annex 2 along with details of the methodology.

The Final Evaluation research team comprised a Team Leader (international consultant and former Chief of Party of the Yemen Monitoring and Evaluation Project-YMEP), a Sector Specialist (international Senior M&E Specialist of the Yemen Monitoring and Evaluation Project), four local consultants, and the members of the M&E unit of YMEP. Local female extension agents from each

governorate were hired to accompany the evaluation teams to the focus group sites.

Constraints faced by the evaluation team included the scheduling of the evaluation to start shortly after the beginning of the holy month of Ramadan, and after the originally scheduled end of the CLP agriculture program. Ramadan is a period when daily work schedules are severely curtailed, availability of government staff is reduced, and field visits become inconvenient for most people. The availability of the CLP Agriculture Team, including the CLP Coordinators in each governorate, was vital to the evaluation for identification of focus group participants and the collection of relevant information from the field. The one week holiday of Eid El Fitr, which marks the end of Ramadan, also reduced the number of days during the evaluation schedule when field work could be conducted.

There were visa restrictions and long delays for short-term technical assistance (STTA), so it was not possible to contract a short-term international consultant for the position of Sector Specialist. The YMEP Senior M&E Specialist assumed responsibility for the task.

During the design of the final evaluation, the evaluation team had planned to select beneficiaries at random from CLP beneficiary lists. However, CLP did not keep such lists at the district level, so focus group participants were selected on the basis of CLP knowledge of their area and beneficiaries. This limitation does not appear to have biased the findings of the evaluation either positively or negatively.

During focus group discussions, and while undertaking the structured farmers questionnaires, a number of questions were asked related to the quantitative impacts of the CLP agriculture interventions: for example, in terms of productivity, water consumption, costs of production, labor and time. Farmers were asked to provide estimates in absolute terms (e.g., volume of production) and in percentage terms. A concern was the ability of farmers to provide accurate information. While the degree of accuracy cannot be determined, it is noted that focus groups in different regions provided a range of estimates and it is the belief of the evaluators that the results, when looked at as a whole and on balance, provide a sound basis for assessing the direction of impact and the relative magnitude of the impacts to date of the CLP agriculture interventions, although precise measures are not possible.

The lack of baseline data for CLP was a significant limitation, which the evaluation team addressed with the careful design of the structured farmer questionnaire to collect data that estimated preliminary outcomes based on the recollection of farmers on production levels both before and after CLP.

3. PROGRAM HISTORICAL NARRATIVE AND ACHIEVEMENTS

CLP startup difficulties have been documented elsewhere[1], so this narrative will be specific to the CLP agriculture program and will include details requested in the SOW.

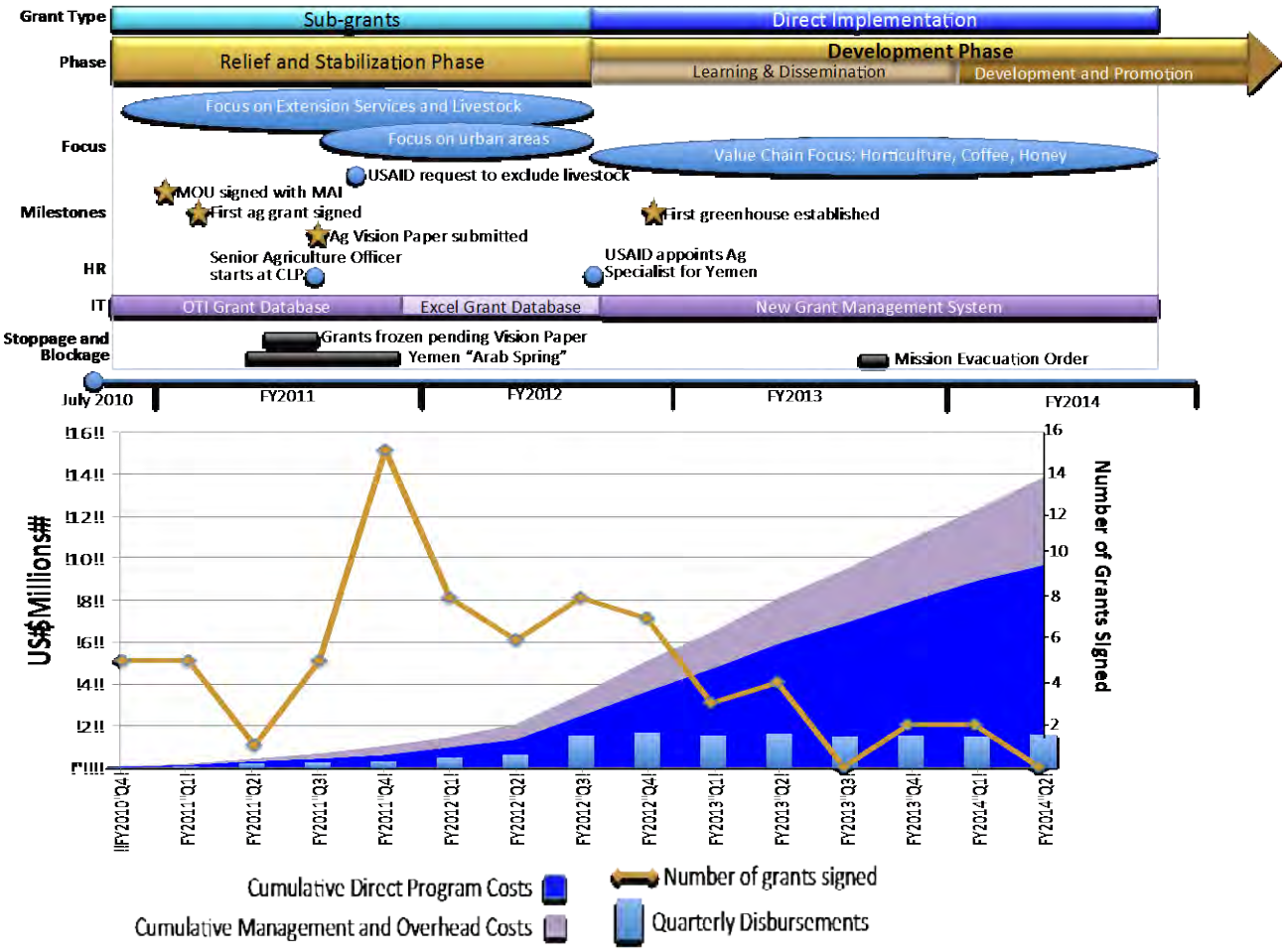
The CLP Agriculture program started earlier than the rest of the CLP components, benefiting from pre-established receptivity within the partner Ministry of Agriculture and Irrigation (MAI), as well as from existing interest and support among the local governors. It also appeared to have benefited from adopting the OTI model already in place, including its tracking system. For these reasons, while CLP and USAID were still trying to establish the overall program, the grants with MAI were signed during the planned protocol period. The sector was also staffed relatively early

[1] See YMEP Report: Rapid Assessment - OTI Yemen Stabilization Initiative July 31, 2011; CLP COP correspondence to USAID and YMEP; YMEP: Mid term Evaluation of the Community Livelihoods Project (CLP), April 25, 2012; CLP Annual Review, Oct 4 2011, power point presentation; and CLP quarterly and annual reports for 2010-2011

on and, by assuming MAI legacy projects, CLP was able to move ahead with the longer-term development approach in parallel with the short-term quick impact grants program.

The timeline in Figure 1 below shows significant events in the history of the CLP, including external ones, such as political and social events that took place and some milestones in the management, operations and results of this project. The chart shows the type of implementation (grant versus direct) the phase, the focus and approach, milestones in management, operations and achievements, and other events in human resources (HR) and information technology (IT) that are worth highlighting.

Figure 1: CLP Agriculture Program Timeline and Disbursement Pattern



The CLP Agriculture Program had two phases, a Relief and Stabilization Phase and a Development Phase.

3.1. Phase 1:

During the Relief and Stabilization Phase (July 2010 – June 2012), 53 agricultural sub-grants of 12 months or less were signed, budgeted at US$4.4 million, with US$435,000 disbursed in direct program costs. While an increasing number of small sub-grants were being registered during this period, expenditures against these sub-grants were not appreciable. In September 2010, CLP signed a memorandum of understanding (MOU) for the Agriculture sector with the Ministry of Agriculture and Irrigation – earlier than the rest of the CLP programs – to work in the

governorates of Saa'da, Amran, Al Jawf, Shabwah, and Marib using the services of ten Agricultural Coordinators who had worked on a Limited Scope Grant Agreement (LSGA)[2] that ended in September 2010. Ten grants were implemented – two in each governorate[3] – by building upon and continuing the strengthening of extension services activities commenced under the LSGA and the Yemen Agriculture Support Program (YASP, 2005-2008).

Based on the Cooperative Agreement (CA), agriculture activities were to be focused in the same communities as CLP interventions in health, education, economic development and governance, but as the latter were late starting, the agriculture program adopted a go-it-alone approach in Year 1.

In April 2011, CLP presented an Agriculture Vision Paper that outlined a strategy of working "with small landholders and landless households to strengthen the value chains for five high-value agricultural commodities: coffee, honey, horticulture, livestock, and fish". This strategy was not initially approved, as the Mission felt that the value chain approach would not address the "fundamental capacities communities need to improve their livelihoods, service levels, or stability…The necessary conditions for improved community livelihoods, services and stability are likely to be more along the lines of a functioning participatory government and political process at the community level, trained health and education providers, youth that are trained for productive jobs, infrastructure that will facilitate investment and employment, and access to technologies, information and markets".[4]

Throughout the Relief and Stabilization Phase, the Mission did not include and was not supported by an agricultural specialist.

Starting in Year 2, the agriculture program, along with all CLP sectors, began to focus its activities in major urban centers at the request of USAID. This request was based on an assessment of CLP performance to date that identified a low disbursement rate relative to funds availabilities, lack of appreciable engagement of government and communities in addressing livelihood needs, absence of clear community targets in a geographic sense, lack of baselines of existing conditions, and no systematic plans for improving them. [5]

During Year 2, US$3.0 million were disbursed for direct program costs on 44 agriculture grants, 18 urban-based and 26 rural-based, in 14 governorates, expanded from the previous eight governorates by including Hodeida, Taiz, Ibb, Mahweet, Dhamar and Raymah.

Two urban grants financed activities of rooftop rainwater harvesting for school gardening; two were for delivery of silver water filters to households and schools; 13 were for household vegetable production for food security and income generation; and one was for rehabilitation of a water supply.

Of the rural grants, 16 were for "Building trust between farmers and MAI"; six were for "Capacity building for beekeeping improvement"; two for "Logistic support to vaccination campaigns against sheep pox" and "peste des petits ruminants (PPR)";[6] and two for "Cleaning of dam canals in Marib"

[2] The $650,000 Limited Scope Grant Agreement introduced best practices to rural farmers involved in competitive crops like coffee, olives, and fruit. The LSGA also supported livestock health services through mobile veterinarian teams.

[3] The grants were "Building Trust between Farmers and the MAI Line Department"; and "Improving Delivery of Public Service at MAI".

[4] Mission Director comments on CLP Work Plan October 15, 2011.

[5] As per the comments by Mission Director Bob Wilson to the CLP Mid-Term Evaluation report, April 20, 2012.

[6] Ovine rinderpest, also known as PPR.

which was a cash-for-work intervention.

Challenges identified during the first two years included social unrest and political instability; and delays in USAID concurrence for CLP work plans and recruitment in five of the governorates, due to requirements under the 2009 Assistance Agreement between USAID and the Government of Yemen, that obliged CLP to obtain authorization from the Ministry of Local Administration (MOLA) before making contact with the governors in the target governorates. CLP was able to work in only two governorates, Marib and Al-Jawf, where it could function through NGOs, not employing CLP direct hires.

The baseline stability assessments were not done until April-September 2011. CLP did not conduct the conflict analysis and needs identification activities that were supposed to precede the formulation of a systematic plan for mitigating the drivers of instability in targeted, vulnerable communities.

CLP grants were frozen from March until May 2011 pending the preparation by CLP of vision statements for the five sectors to reflect the new approach to implementation through longer-term awards and integration instead of the community-based development strategy.

Political instability in Yemen resulted in staff evacuations for six months (January to June 2011), during which time contractors' international staff and USAID personnel were reduced, reducing CLP implementation capacity and leaving gaps in USAID/Yemen's oversight and in-country AOTR personnel. A new CLP Chief of Party (COP) was named in August 2011.

On the ROYG side, street violence and lack of security reduced staff ability to travel between neighborhoods in Sana'a, and government offices were frequently closed for a period of several weeks, making communication with ministry officials impossible.

CLP had inadequate staffing in the position of a Senior Agriculture Officer; this officer was not included as a key position in the RFA and was not filled until March 2011. Additionally, the Senior M&E Officer position was not filled until February 2011. As a result, there was poor quality control for grant ideas, challenges with the identification and training of senior Yemeni staff, weakness in the technical approach, and poor guidance provided to field staff. Additionally, USAID was perceived as not dedicating sufficient time to CLP grants processes due to competing responsibilities and understaffing in the Mission.

In Year 2, the precarious security environment throughout the country, particularly in Abyan but also elsewhere, prevented NGOs from delivering project activities and some activities had to be curtailed. In response, CLP opened an office in Aden and assigned staff to implement projects for nearby Abyan remotely. CLP was also asked to redirect some of its activities and to increase interventions in urban centers. These changes would, by Year 3, affect the continuity of the interventions aimed at strengthening the extension system in the governorates that were targeted in Years 1 and 2.

3.2. Phase 2:

The Development Phase comprised two periods: a Learning and Dissemination Phase (July 2012 to December 2013); and a Development and Promotion Phase (January 2014 to September 2014).

In June 2012, following the visit to Yemen of the USAID Administrator, the Mission's focus on agriculture transitioned to a sustainable value chain approach. In addition, USAID appointed an Activity Manager for the CLP Agriculture Program. This programmatic shift was in response to the fluid situation in Yemen and the priority US foreign assistance objectives as clarified by USAID and State Department leadership. The CLP Agriculture program demonstrated a high degree of flexibility and a good ability to respond to the changing priorities of USAID.

During part of this phase spanning 18 months (July 2012 through December 2013), 22 agricultural Direct Implementation grants were signed: five were for Building Trust between Farmers and MAI (Amran, Dhale, Al Jawf, Lahj, Marib and Shabwah); two for Marib Dam Cleaning grants; one grant to provide logistic support to livestock vaccination campaigns against PPR and Sheep Pox; two grants to provide logistic support, pheromone traps and training to farmers for the control of Tuta Absoluta; and ten Demonstration and Capacity Building grants related to the value chains of honey, coffee and horticulture.

The main focus of this phase was to adapt and refine technologies and practices to suit local conditions (learning); to demonstrate those technologies to farmers on pilot farms on which CLP had installed greenhouse, nursery and irrigation and solar technologies; and to provide training to farmers in good agricultural practices, postharvest and marketing for the three value chains.

In the subsequent Development and Promotion Phase (January 2014 – September 2014), CLP continued to promote the technologies and agricultural practices introduced during the Learning and Dissemination Phase. Five grants started in 2013 were completed during this period.

The challenges faced during this period were not as significant as in the earlier years although the same issues of security and regional unrest continued to persist. Increases in fuel prices, and the fuel shortages in mid-2014 related to the government's decision to lower fuel subsidies, resulted in delays in the completion of demonstration greenhouses as vendors were unable to deliver key inputs on time. This meant that in those target districts where the demonstration greenhouses were to be established, CLP could only provide theoretical training to farmers. In response, CLP requested and obtained an extension of four months for the agricultural program in order to complete the greenhouses and conduct the practical training sessions and farmer field days that form part of the didactic approach.

The amounts disbursed in direct program costs were US$ $4.4 million during Year 3 and US$2.7 million in year 4 up to March 31, 2014.

4. ADEQUACY OF PROGRAM DESIGN AND STRATEGIC AND OPERATIONAL APPROACH

The original program design as described in the Cooperative Agreement entailed taking an integrated, community-based approach to identify, design and implement activities in targeted vulnerable communities and transitioning from customary, sector-based development interventions to a more integrated approach, addressing the key grievances and drivers of instability in targeted, disadvantaged communities.

CLP was not able to implement this approach and thus its adequacy was not subject to field testing. Previous evaluations and reviews of USAID projects of this period challenged the appropriateness of this strategy, starting from its basic premise that the roots of instability were in individual communities rather than in tribes and political systems, and including its lack of recognition of the need to involve the central and governorate level ministries. CLP attempts to implement a stabilization approach consisted of carrying out quick-impact interventions, in accordance with the Request for Application (RFA) and similar to the approach under OTI. In contrast to the short-term nature of these interventions, however, the agricultural cycle tends to require a relatively longer period of technical assistance and follow-up support, covering multiple aspects of the value chain, in order to prove effective and sustainable.

4.1. Adequacy of the Urban Focus Phase Design and Operational Approach

In mid-2011, USAID requested that CLP refocus on urban areas, with a view to increasing the disbursement rate and achieving a higher degree of interconnection between the various CLP

sectors. During this phase (July 2012 – June 2012), CLP achieved a successful integration with its other components with activities such as rooftop rainwater harvesting for school gardens (Agriculture + Education); distribution of silver water filters (Agriculture + Health); and household vegetable production for food security and income generation (which overlapped with Health and Education in terms of geographic focus). Yet the interventions were small-scale activities that are not central to Yemen's National Agriculture Strategy of 2012-2016, or to CLP Agriculture and Water Vision Paper of 2011.

4.2. Adequacy of the Development Phase Design

During the development phase from July 2012 – September 2014, the design of the agriculture program was based on a pilot/demonstration farm approach, whereby "new" (to the country or the region) agricultural technologies and practices are tested and adjusted to local conditions, and then demonstrated to farmers on private farms that were subsequently used as demonstration sites for practical training and promotion of new agricultural practices and technologies.

The design lacked a realistic time plan, a clear vision about targets and accessibility, lacked mechanisms for knowledge sharing and community based support, and did not have a proper monitoring plan.

Time planning: The development phase would have required a minimum of five years to be implemented effectively, including one and a half years for learning and dissemination, and three and a half years for development and promotion. During this latter phase, farmers would have commenced to adopt the technologies and practices that were tested and demonstrated. Farmers adopt new technologies and practices based on empirical observation and personal experience as well as belief in the benefits, relevance and feasibility or ease of adoption, including complexity and costs.[7] The process is faster for some (early adopters) than for others (the majority). CLP started Phase 2 with two years remaining in the implementation period (based on the original end date), which left a scant six months for a development and promotion phase that requires at least three years. This means that there are limited outcomes in terms of the application rate as expressed by the number of hectares on which new agricultural technologies and practices have been applied (as will be shown in the section on impact).

The risk from this time issue was somewhat reduced when USAID awarded the new Competitive Agriculture Systems for High Value Crops (CASH) project, and included in its mandate the continuation of the agricultural innovations introduced by CLP, based on the initial results of the CLP demonstration farms, thus preempting some of the recommendations this evaluation has reached in this regard. Furthermore, the entire CLP agriculture team has been absorbed by the CASH project.

Targets and accessibility: In the case of the horticultural value chain, the main technological innovation introduced by CLP is the greenhouse, the cost of which (at around US$4,500 to fully install) is not accessible to individual poor farmers. The CLP program design did not include a viable mechanism or path by which the target beneficiaries (poor and landless farmers) mentioned in the Cooperative Agreement could access the greenhouse technology. CLP program design did not include testing and demonstration of "middle" technologies, such as cheaper greenhouses made with local labor and materials from local markets (our focus groups reported that this was done in the governorate of Raymah by local artisans), or cheaper plastic tunnels or plant covers that largely replicate the protection and temperature control of greenhouses. Credit and other financing options were also not part of the CLP intervention.

[7] The theory on adoption of innovations is grounded in field research conducted largely in agriculture settings and is part of the basic training of agriculture specialists and extension agents.

Knowledge sharing mechanism: The CLP program design did not include a mechanism to bring together MAI officials at the governorate level to share information and ideas about the program. During the focus group discussion with MAI officials, one participant expressed his appreciation for the opportunity to have met with MAI officials from other governorates, indicating that this was the first time to have met with them. Knowledge exchange is one of the tools used by known approaches in the agriculture field, such as Improvement Collaboratives,[8] to rapidly spread the adoption of innovations and best practices. Such approaches can be applied to farmers, extension agents, sector managers and CSOs alike.

Monitoring: The CLP program design did not include an adequate monitoring program, as will be shown under the planning and M&E section.

4.3. Adequacy of Design from a Gender Perspective

According to the Cooperative Agreement, CLP planned to develop gender sensitive programming, undertake assessments of communities, and ensure CLP projects were inclusive and empowering to women. All community-identified priority projects were to be reviewed by CLP staff and the Gender Specialist based in Sana'a, to ensure that projects adequately met both the needs of men and women, and did not exclude women from the process. The Gender Specialist was to work with the Mobile Technical Unit's Gender Officer and Community Mobilizers as required to provide technical assistance, training, and review of project implementation plans.

This design approach has not been implemented or tested and cannot be evaluated using the evidence from the actual implementation process undertaken by CLP, as the community assessments were not undertaken and the agriculture program did not implement the gender-sensitive programming approach described in the Cooperative Agreement.

In practice, CLP agricultural interventions did not reflect the operational principals of USAID's gender equality and female empowerment policy. Although CLP did include women as beneficiaries in select activities of the agriculture program, it did not analyze each activity from a gender perspective and tailor each activity to ensure that they were inclusive of and empowering to women. The grant documents did not include a description or strategy that reflects a gender perspective. As such, it cannot be said that CLP agriculture program "pursued an inclusive approach to foster equality", nor that CLP agriculture interventions "harnessed science, technology and innovation to reduce gender gaps and empower women and girls", both of which are tenets of USAID's gender equity and female empowerment policy.

CLP highlights the activities that were specifically focused on women: trained roughly 3,000 women in livestock management and food processing; and having 10 of 20 nurseries for coffee and horticulture owned and operated by women. However, in order to strengthen the adequacy of design from a gender perspective, the approach described in the Cooperative Agreement should have been implemented.

4.4. Degree of Success at Building upon Successful USAID-Supported Components

During the relief and stabilization phase (July 2010-June 2012), CLP successfully built upon the strengthening of the MAI extension services that had been a key aspect of the YASP. It did so through the implementation of ten grants for "Building Trust between Farmers and the MAI Line Department" and "Improving Delivery of Public Service at MAI", referred to in Section 3.1.

[8] "Improvement Collaboratives" have been used in community development and health care, as well as in agriculture, as an approach to improving quality by using best practices and the support generated from participation, exchanges and community "spirit".

4.5. Adequacy of Design from a Sustainability Perspective

During the Rapid Response and Stabilization phase, from July 2010 through June 2012, the interventions were by nature one-off, short-term interventions. A robust sustainability design in agricultural projects that involve the transfer of innovative agricultural practices and technology usually requires technical follow-up over a longer period of time than the three to six months grants that characterized the first phase of CLP. Significant elements of sustainability were included, however, in the design of some interventions. For instance, the "Building Trust between Farmers and MAI" grants were designed to strengthen the capacity of MAI extension agents in the belief that a strong extension service would help to sustain all subsequent CLP farm-level interventions involving the transfer of agricultural technologies and knowledge of agricultural practices.

CLP approach to sustainability was to involve the grantee in "all aspects" of the grant. Also, depending upon the nature of the grant, the sustainability approach involved training farmers, MAI extension agents and private service providers, with a view to creating a body of knowledge capable of providing technical backstopping for grantees. The mechanisms that CLP established to work with the Ministry of Agriculture's extension offices were very effective and addressed local agriculture development needs. In some cases, a memorandum of understanding (MOU) was signed. In their recollection of how CLP activities were initiated and implemented, all MAI directors in the governorates confirmed that they were involved in the projects relevant to their areas; but it was not the type of involvement that generates ownership and commitment to sustainability. In the words of one of the participants, "Basically, CLP provided us with ready-made plans for activities they had already decided to implement and we accepted them because they actually were things that we needed."

Most grant proposals included a description regarding the sustainability of the activity, indicating the entity responsible for maintaining the project after completion. Whether these clauses were implemented is difficult to know given the absence of follow-up. A new USAID project should take on the responsibility to conduct post-project sustainability assessments.

The CLP approach to sustainability was also rooted in the belief in the key role that the private sector has to play in the sustainability of agriculture interventions, and thus it supported the creation of private sector nurseries rather than public-sector-run nurseries. The CLP strategy for the introduction of new technologies (drip irrigation and solar pumps) was to develop a cadre of public sector agriculture extension agents and private sector experts in each region to propagate knowledge and provide technical support to farmers. To promote this approach, CLP brought in drip systems from India to introduce the technology and connect the international supplier (DripTech) with local agriculture input providers. The promotion of drip irrigation systems with local commercial suppliers will be a key aspect of sustainability as market systems are put in place to provide drip irrigation technology on a national level.

CLP's pivotal role in the formation of the National Honey Association, as a cornerstone of its intervention in the honey value chain, and the involvement of the Faculty of Agriculture of the University of Sana'a, are also indicative of an adequate vision of sustainability.

Although CLP provided support to a number of extension centers (Amran, Lahj, Dhale, Ibb and Taiz), the assistance was very limited in comparison to the overall needs of a large agriculture extension network - made up of over 300 centers- which remains largely unused and lacking in capacity.

4.6. Grants versus Direct Implementation

Under the agriculture program a total of 71 grants were implemented, including 24 direct implementation grants and 47 sub-grants, for which MAI was the sub-grantee in 37 instances (79%

of sub-grants). According to CLP, sustainability was the reason why most sub-grants were with MAI.

According to CLP, the logic behind the shift to direct implementation was to get around the six months maximum implementation period of sub-grants which was not suitable to the value chain interventions of the development and promotion phase. While it is true that the value chain interventions required implementation periods of longer than six months in order to be effective, it is not true, however, to say that the sub-grant mechanism *per se* is unsuited to activities with longer implementation periods. Furthermore, an analysis of data from the CLP grant system reveals that the average length of duration of sub-grants was actually longer than the average duration of direct implementation grants. The average length of sub-grants between start date and end date was 303 days, compared to 246 days for direct implementation grants[9].

Planning: It was far easier for CLP to design and plan for the entire year under direct implementation. The sub-grant approach was more fragmented because of the way grant concepts and proposals were developed.

Efficiency: Direct implementation was more efficient in terms of disbursement of funds. The average disbursement amount of direct implementation grants was US$138,043 compared to an average disbursement amount of US$61,464 for sub-grants. An indicator of disbursement efficiency is the average daily disbursement rate (ADDR), calculated as the total disbursement amount divided by the average disbursement time. The ADDR is US$561.91 in the case of direct implementation and $202.71 in the case of sub-grants, a ratio of 2.8 times greater efficiency of disbursement for direct implementation.

Control: In terms of control, there was little or no difference between the direct implementation grants and the sub-grants, because in essence CLP played a lead implementing role in both instances. CLP considers that the activities implemented through MAI sub-grants were practically implemented as direct implementation grants. CLP maintained full control of technical direction, thus ensuring that quality standards were maintained and planned outputs were achieved.

Community participation: The sub-grant mechanism did not result in increased community participation compared to the direct implementation grants primarily because – in a departure from the methodology indicated in the cooperative agreement as a community-needs driven approach to grant identification – sub-grants were largely formulated and proposed by CLP based on high-level assessment (as opposed to community-level assessment) of needs, capabilities, opportunities and constraints in target governorates.

In both sub-grants and direct implementation grants, CLP played the key role in identifying the grant ideas, presenting them to the community, local council, and MAI at the district, governorate and central levels, and convincing these stakeholders of the technical soundness of the interventions. Convincing beneficiaries to accept was a good strategy but is not sufficient to give them ownership of the activity. MAI directors in governorates who were very positive about CLP results made sure to clarify that the approach was more directive than participatory.

Performance differences: CLP considers that it effectively implemented most of the sub-grants directly; specifically, the sub-grants implemented through MAI, which constitute the majority of sub-grants.

One exception was the domestic food production (home vegetable gardens) activity: seven grants were implemented by Al Thuraya and Yemen Sustainable Agriculture Development, while six grants were done as sub-grants through MAI. CLP compared the implementation efficiency of the

[9] Source: CLP Grant Management System

cohort of both grants and noticed that the ratio of planned budget to disbursed funds among CSOs were 34% more effective than CLP/MAI in implementing grants of similar nature.[10]

Capacity assessment and building: As part of the preparation of all sub-grants, CLP undertook a formal institutional assessment of the potential sub-grantee, including obtaining and confirming references, and assessing financial, administrative, procurement and technical capacity. If institutional weaknesses were identified, CLP did not select that CSO. The agriculture program did not provide support to strengthen the five CSOs with which sub-grants were signed: these were Social Fund for Development (SFD); Childhood and Youth Development Association (CYDA); Yemen Family Care Association (YFCA); Al Thuraya for Agriculture Consulting; and Yemen Sustainable Agriculture Development.

In the case of the MAI, recipient of the largest number of sub-grants, the active participation of MAI extension agents was intended both to strengthen the capacity of the extension service as well as provide services to beneficiaries at the farm level.

Learning: By the time the lessons of the other sectors had been learned (during the mid-term evaluation of the program), the agriculture program had taken the decision, with USAID concurrence, to shift to a direct implementation approach; a decision taken in order to permit a more rigorous planning of activities on an annual basis, taking into account the time constraints of sub-grants.

Appropriateness: Both the sub-grant and the direct implementation mechanisms are suitable and recommended for implementing agricultural interventions in Yemen, with the caveat that most agricultural interventions require longer-term technical assistance and follow-up than the short-term sub-grants that characterized the Relief and Stabilization Phase of the CLP agriculture program.

Direct implementation is more suitable for multi-year interventions such as the value chain activities that were implemented by CLP during the Development Phase, which were mainly multiyear value chain interventions that require more detailed planning and continuity from one year to the next than most local entities in Yemen have the capacity to successfully implement. There is, nonetheless, a role for sub-grant mechanisms in agriculture interventions involving CSOs, NGOs and private sector entities, provided that institutional capacity-strengthening support is given where needed.

Under the Responsive Governance Project (RGP), USAID/Yemen has supported programs to graduate CSOs to become USAID direct grantees- but not in the agriculture sector. It is conceivable for future agriculture projects to groom a selected number of agriculture organizations to become direct recipients of USAID grants and important players in this sector to provide services to farmers. Such services to farmers can include technical assistance and advocacy of the kind provided by extension agents of the MAI, and this may thus complement the ailing government extension network. USAID's Feed the Future Program has supported the establishment of Farm Business Centers (FBC) in Ethiopia after being successful in Georgia, Moldova and Afghanistan. Each FBC has uniform branding and logo usage and maintains a similar floor plan that includes a crop showroom, veterinary showroom, community training room, environmentally sound storage facilities, and office space. The model could possibly be suited to the needs of the Yemeni agriculture sector and farmers.[11]

[10] See Comparison of Financial Efficiency on Household Vegetable Production Grants in Annex 4

[11] The program is implemented by CNFA, a U.S.-based international development organization that focuses on stimulating economic growth through enterprise-based agricultural initiatives.

5. PLANNING, MONITORING, DATA QUALITY AND REPORTING

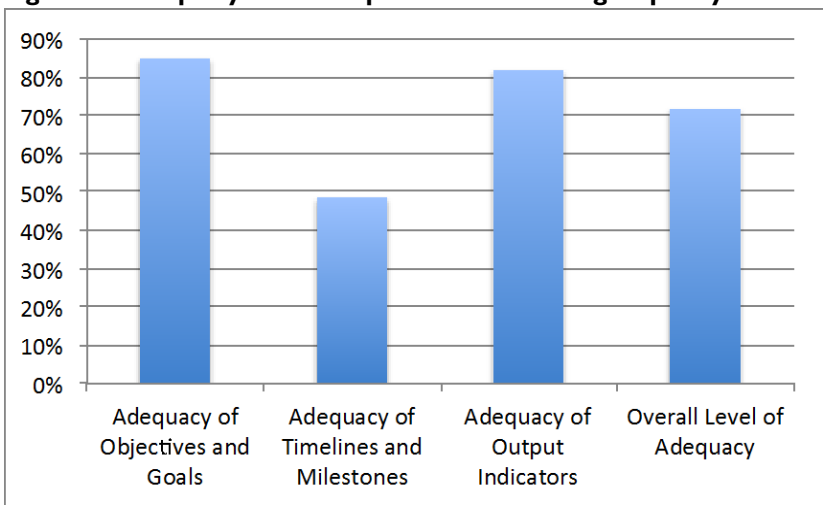
This section presents an analysis of the CLP planning process, including the effectiveness of CLP operational planning capacity for individual grants and the adequacy of the Performance Management and Evaluation Plan (PMEP), including the Performance Indicator Reference Sheets (PIRS), as tools for adequate project management.

5.1. Effectiveness of CLP Operational Planning Capacity for Individual Grants

To analyze the adequacy of the grant objectives, goals, timelines, milestones and output indicators, a sample of grants were selected for review and the documents provided by CLP for each grant were scrutinized; in particular the grant agreement, grant proposal form document, cost table, monitoring plan, and timeline documents were reviewed. The grants were scored according to basic criteria (please see details in Annex 3) along three categories: Adequacy of objectives and goals; Adequacy of timelines and milestones; and Adequacy of output indicators. The top score is 3 for each category with 9 as a composite maximum. A ranking was assigned as High (score of 8-10); Medium (score of 5-7) and Low (score below 5).

The assessment results for the adequacy of the CLP operational planning capacity are shown in Figure 2. The overall capacity score was 72%, with a score of 85% for adequacy of the definition of objectives and goals; 82% for output indicators; and a low 48% for adequacy of timelines and milestones, due to the lack of timelines in the documents submitted by CLP. When timelines were present, they reflected a lack of detailed planning and some unrealistic time estimates with regard to procurement activities. In a number of grants, the timelines lacked certain activities that were mentioned in the project proposal. The criteria used for this assessment and the detailed scores for each grant are provided in Annex 3.

Figure 2: Adequacy of CLP Operational Planning Capacity



5.2. Adequacy of the Project Monitoring and Evaluation Plan (PMEP)

Of all PMEPs prepared by CLP during the implementation of the program, the version of January 2014, covering the period October 1, 2013 to June 30, 2015, is the most detailed and most adequate tool for project management. It was prepared based on the "Format for the PMEP of USAID/Yemen Implementing Partners" that was developed by YMEP and approved by USAID in December 2013. There are four output indicators, all related to CLP Activity 1.1.1, "Train MAI & farmers in modern farming practices" and one outcome indicator: Number of hectares under improved technologies or management practices as a result of USG assistance.

Prior to that period, PMEPs had some shortcomings. The changing priorities of the mission affected CLP ability to establish and implement a monitoring and evaluation plan.

The PMEP dated March 2011 was prepared to cover the entire implementation period of the project but contained no indicators specific to the agriculture sector and therefore was of no use as a tool for the management of the agriculture program. The PMEP of April 2012, with four output indicators specific to agriculture and one preliminary outcome indicator, had incomplete PIRS that did not adequately describe the methodology for data collection and data processing, including how to mitigate possible double-counting of beneficiaries, and only included end-of-project targets. In order to be of use as a management tool, annual targets should be included that are reflected in annual work plans. The data source for the indicator "Percentage of farmers and others who have applied new technologies or management practices as a result of USG assistance" was cited as a Beneficiary Satisfaction Survey, which would be an erroneous methodology (the correct method would be a Technology Adoption Survey).

None of the PMEPs had any reference to the financial aspects of the project. Good project management requires keeping track of physical progress (progress toward planned outputs) as well as financial progress. Both are important and both should be included in the monitoring plan. The cost of achieving the annual output targets needs to be reflected in the annual planned disbursement plan, and one of the indicators of efficiency should be the cost to achieve each unit of output for each output indicator.

5.3. Effectiveness of CLP Monitoring System

The CLP M&E unit at the national level is responsible for monitoring and evaluation of grants and activities in coordination with each sector, but due to staffing limitations, it relied on the agricultural coordinators to monitor the implementation and compliance with the grants

agreements. M&E Specialists were hired by CLP in January 2011, including for agriculture activities, a few months after the Senior M&E Specialist was hired (September 2011).

The M&E system was put in place in FY 2011, and has established guidelines[12] and tools including the Routine Monitoring Report (RMR), the Final Evaluation Report (FER) and the Grant Completion Survey. In September 2013 CLP, in consultation with USAID and YMEP, also issued a new set of procedures on "Data Collection, Management and Reporting" in line with USAID standards for monitoring and evaluation,[13] and as a response to recommendations from an Inspector General Audit report on CLP.[14]

Through the Third Party Monitoring (TPM) it conducted in the last three years, YMEP has provided CLP with feedback and assistance to improve its M&E and has noted the information flow issues that surfaced from time to time between the field and the central level, and sometimes between the M&E and the operation units- in this case, the agriculture sector unit. Issues included variations in the grant objectives between the field and the center, where records are not updated with amendments to the grant made in the field.

CLP quarterly reports include a Performance Data Table (PDT) and only data reviewed and vetted by the CLP M&E Unit, and entered in the data ClearingHouse, should be considered accurate. This is because the M&E Unit is responsible for ensuring that the data collection and analysis process follows the procedures outlined in the Performance Indicator Reference Sheets.

In order to assess the performance of the Unit, the Evaluation team verified with the CLP Senior M&E Officer that a total of 13 monitoring visits and 23 final evaluation visits were performed on agriculture activities during the life of the project, as indicated in Table 1.

Table 1: Number of grant monitoring and evaluation visits performed by CLP

Quarter	No. Routine Monitoring Visits	No. of Final Evaluation Visits
Jul - Sept 2011		10
Oct - Dec 2011	1	
Jan - Mar 2012	1	5
Apr - Jun 2012	1	
Jul - Sept 2012	1	
Oct - Dec 2012	1	
Jan - Mar 2013	2	1
Apr - Jun 2013	3	2
Jul - Sept 2013	2	3
Oct - Dec 2013	1	1
Jan - Mar 2014	0	1
Apr - Jun 2014	0	0
Total	13	23

Compared to the total number of activities funded (71, as per the detailed list in Annex 4) this represents a ratio of 1 out of 5.5 grants getting a monitoring visit (18%) and 1 in 3.1 grants (32.4%) getting a final evaluation. In comparison, the level set by CLP in its M&E Guidelines is a minimum of one monitoring visit to the project site and one final evaluation for every grant.

[12] M&E Guidelines for CLP Grant Implementation and Completion Process, November 2011 (Draft)

[13] As reflected in the USAID Automated Directives System (ADS) Chapter 203, Assessing and Learning.

[14] "Risk Assessment of USAID Yemen, Final Report." USAID/OIG, March 2011.

CLP conducted a Grant Impact Assessment in March 2012,[15] but had no other impact assessment conducted since- although at the time of this evaluation, the CLP M&E Unit was in the process of doing the data entry and analysis on two outcome indicators: number of farmers adopting new technology; and number of hectares under new farming practices.

As ascertained with the MAI, CLP did not work with the statistics department of the MAI. This may be due to the perceived lack of reliability in the official statistics, although past USAID investment in building the statistical capabilities of the ministry may have improved agriculture statistics. The CLP M&E system did not make use of any secondary agriculture data except for one service statistic provided by the MAI: namely, the number of farmers to whom agricultural extension agents provided technical support and/or training. CLP provided extension agents with training in the use of service records, copies of which were sent to the CLP M&E unit for processing towards the indicator of the number of farmers visited by each extension agent in the governorates where CLP interventions strengthened extension services.

5.4. Adequacy of M&E System' Preliminary Outcomes

The M&E System for the agriculture program did not include SMART preliminary outcome indicators until FY2014, when a new PMEP was developed and included, for the first time, an outcome indicator on the area of land farmed with CLP-promoted agriculture technologies and practices.

No baseline was established for the CLP agriculture program. Important outcome indicators such as changes in agricultural productivity, food availability, and household agricultural income would all have relevance to demonstrating the preliminary outcomes of the agricultural program. The rate of application of new agricultural technologies and practices, another preliminary outcome, was also not in CLP M&E System.

In order to adequately measure (and attribute) preliminary CLP outcomes, the recommended approach is to use a quasi-experimental design in which beneficiary farmers are compared to non-beneficiary farmers in similar socio-economic and agro climatic conditions. A baseline is established for both the beneficiary and non-beneficiary cohorts and then changes in terms of production, farm income and other indicators of improved livelihoods are compared between groups to determine whether there is a significant difference that can be attributed to the project.

The project-level M&E system of future agriculture sector programs should include baseline information, output indicators with annual targets, intermediate outcome indicators that can be measured during the life of the project, and end-of-project outcome indicators.

The program unit of the project should work closely with the M&E unit, to ensure that all outputs that are important to the goals and objectives of the program are included in the program monitoring plan.

5.5. Accuracy of Data on the Number of Direct and Indirect Beneficiaries

CLP reported data to USAID on the number of beneficiaries through the weekly, quarterly and annual reports; the ClearingHouse (CH); and ad-hoc reports and fact sheets provided by the Agriculture section of CLP.

The CH agriculture program indicators that report on direct beneficiaries are shown in Table 2. It should be noted that the CH is incomplete as it only contains data up to July 2013. Data for

[15] To assess the effect of CLP grants on community perceptions regarding ROYG support /involvement; assess the satisfaction of beneficiaries and community grant recipients with the grant's outcome; and assess if the targeted community livelihoods have changed/improved as a result of the grant.

FY2014 have not been entered. Moreover, the number of direct beneficiaries included in the CH data does not include beneficiaries of the cleaning of the Marib Canal,[16] livestock vaccination campaigns, or the farmer field days.

Table 2: Data Quality of Direct and Indirect Beneficiary Reported Numbers

Indicator	Beneficiaries	Data Quality
(IP) Number of farmers and others who have received new technologies or management practices support or training as a result of USG assistance	68,929	Medium (DQA 2013) Issue: Possible double counting
(IP) Number of Extension Agents trained as a result of USG-assisted programs	787	Medium. Possible issue of double counting.
(IP) Number of people with access to improved drinking water supply as a result of USG assistance	22,833	Medium (DQA 2012). Issues: Need to develop PIRS; need to review procedures for compiling data and calculating total number of beneficiaries. Calculation errors detected.
(IP) Number of VET staff trained as a result of USG-assisted programs	134	Medium: Possible issue of double counting.
TOTAL	92,683	

This direct beneficiaries' total figure is under-reported because it does not include the beneficiaries of the animal vaccination campaigns supported by CLP; or beneficiaries of farmer field days (July 2012- September 2014). However, the data may include double counting of beneficiaries from one year to the next. The CLP M&E Unit has implemented procedures to eliminate double counting within a given fiscal year, but not between years. This is in keeping with USAID guidelines to YMEP and the Implementing Partners.

The number of indirect beneficiaries reported in the CH is 508,283 individuals. For indicators reviewed by YMEP during recent DQA exercises, CLP has calculated the number of indirect beneficiaries by multiplying the number of direct beneficiaries by 7.1, which is the average national household size in Yemen according to the 1998 Household Budget Survey. That same survey found that the average household size of poor households was 8.2 (9.2 in urban areas, 8.0 in rural areas).[17] As most of the beneficiaries of the agriculture program are rural poor, CLP would have been justified to use the 8.0 multiplier for rural interventions, and 9.2 for water improvement interventions (which took place in urban areas).

The number of indirect beneficiaries should be calculated by multiplying the average household size minus one; that is the average household size minus the direct beneficiary of the household who is already counted as a direct beneficiary. Based on an average household size of 7.1, the indirect beneficiary multiplier would be 6.1.

[16] For the Marib Canal cleaning project, the direct beneficiaries were counted as the individuals who were paid to clean the canals. Farmers who benefitted from improved access to irrigation water were counted as indirect beneficiaries.

[17] Republic of Yemen Poverty Update (In Two Volumes) Volume 1: Main Report December 11, 2002.

Based on the number of direct beneficiaries recorded in the CH, the numbers for indirect beneficiaries, IB, would be equal to IB = (b1 + b2 + b3) x 6.1 + b4 = (68,292 + 787 + 134) × 6.1 + 22,833 = 445,032.

In this equation, b1 is the number of farmers and others who have received new technologies or management practices support or training as a result of USG assistance (= 68,292)

b2 = the number of Extension Agents trained as a result of USG-assisted programs (= 787)

b3 = the number of VET staff trained as a result of USG-assisted programs: (=134)

b4 = the number of people with access to improved drinking water supply as a result of USG assistance (=22,833)

The variable b4 is added without the multiplier because all members of the household were already counted in the calculation of the number of beneficiaries of improved water.

Based on the above logic, the number of indirect beneficiaries reported in the CH is overestimated by 14% (calculated as (508,283-445,032)/445,032).

5.6. Monitoring of Sustainability

The assessment of sustainability of CLP interventions is addressed later in the next section of this report. Here, the question is whether CLP monitored sustainability as stated in all grant proposal documents, which included a succinct description of how the sustainability of the grants would be achieved. It was determined from observation that CLP did not monitor the sustainability of its interventions, nor take follow-up action to resolve eventual issues after project end or grant completion. For example, the grant CYEM044 "Household Vegetable Production for Food Security and Income Generation" required that the CSO grantee "Carry out monitoring and evaluation at household level – to be continued beyond the grant". This monitoring activity was not carried out, which is to be expected since, once the grant ended, there would be no remuneration to the sub-grantee for the cost of ex-post monitoring.

Monitoring the sustainability of interventions would require that ex-post monitoring visits be undertaken; that is, after the completion of the individual grants. The CLP monitoring program did not include such visits, it only provided for final evaluation visits, which were only done for limited cases, as shown earlier. As such, CLP did not have a mechanism to determine the sustainability of its interventions, identify issues, and undertake follow-up activities to resolve issues.

USAID indicated to the evaluation team that it had recognized the issues related to the M&E system and took action to address them as CLP transitioned to a value chain approach. Sustainability was also recognized by USAID as an issue and it remains an issue under the follow-on USAID agriculture development project. Finding ways to promote high value crops by improving productivity and access to markets is now seen by the Mission as a key approach to the sustainability of interventions involving innovative agricultural practices and technologies with the expectation that market demand will create the economic incentives to provide the technology needed.

According to the USAID Activity Manager for the CLP Agriculture Program, "The goal of introducing and promoting the spread of productivity-enhancing technology appears within reach as more beneficiaries and stakeholders see the benefit in terms of productivity and returns to farmers. By developing profitable enterprise models under the new CASH project, the Mission will be able to continue to expand the sustainability of adoption and use of these technology packages".

5.7. Quality of Reporting

This section analyzes whether program reporting has met USAID standards, taking into account the quality (timeliness, accuracy and relevance) of program reporting.

CLP weekly, quarterly and annual reports provided good descriptive information on the highlights of the given reported period. The reports did not include, however, information on actual to planned fiscal and financial progress, or information regarding progress toward the output and outcome indicators for the various activities. As such, the reports did not provide information that would make it possible to assess actual against planned performance.

The CLP grant management system has limited capacity for reporting on disbursements. The grant system is only capable of providing information on the budget for each grant and on the total amount disbursed, but is not able to provide information on the time period when each disbursement was made.

6. EFFECTIVENESS AND EFFICIENCY

6.1. Planned Versus Actual Budget Implementation

There was no information available to the evaluation team on quarterly burn rates, which are a USAID reporting requirement, so it was not possible to make a comparison over the life of the project between target burn rates and actual ones. On the other hand, the numbers in Table 3 indicate a significant gap between budget and actual spending in the first year and in the fourth year of the project. Based on the CLP budgeted amounts of US$20.7M, this represents nearly a 50% level of under-expenditure but is reduced to 32% based on the total level of funding of US$15.4 M stated in the SOW.

One measure of fiscal efficiency is the ratio of planned disbursements (budget) to actual disbursements. The ratio also reflects the quality of operational planning: a low ratio may reflect unrealistic planning timelines, unrealistic assessment of operational capacity, or the inability of the implementing entity to address issues and resolve them in a timely manner. A low ratio may also reflect external "shocks" over which the implementing agency has no control, such as the Yemen version of the "Arab Spring" in 2011 or localized security-related operational disturbances.

The level of fiscal efficiency of the CLP agriculture program was evaluated according to the following criteria:

Ratio [R]	0.5 < R	0.5 ≤ R < 0.75	0.75 ≤ R ≤ 1
Efficiency Level	Low	Medium	High

Based on the above criteria, the fiscal efficiency level for the agricultural program was low overall and in each year of implementation except for Year 3 where the budget was exceeded.

Table 3: Planned Versus Actual Disbursements

	Direct Program Costs (US$ Million)		**Ratio Disbursed/Budget**	**Efficiency Level**
	Budgeted	Disbursed		
Year 1 (July 2010-June 2011)	not available	0.4	NA	NA
Year 2 (July 2011 – June 2012)	$10.80	3.0	0.3	**Low**
Year 3 (July 2012 – June 2013)	$3.70	4.4	1.2	**High**
Year 4 (July 2013 – June 2014)	$6.20	2.7	0.4	**Low**

Overall total	$20.70	10.1	0.5	**Low**

[1]According to Annual Work Plans. The Year 1 Work Plan did not include a budget estimate.
[2]Source: USAID: CLP Quarterly Disbursements.

6.2. Achieved Outputs of the Agriculture Program

This section presents the achievements of the agriculture program based on information provided by the CLP M&E Unit, including data from the Clearinghouse (CH) up to June 2013 and data provided separately for the period July 2014-June 2014 and information provided by the Agriculture Unit.[18]

The indicators listed in Table 4 have been approved by USAID and have been subject to a data quality control process. In comparison, the outputs presented in Table 5 have not been subjected to the data quality review process and, furthermore, the disaggregation of outputs presented by the Agriculture Unit is different and not readily comparable to the output indicators that are managed by the CLP M&E Unit.

Table 4: Achieved Outputs of the Agriculture Program (Clearinghouse Database)

	Indicator	M&E Unit
1	(IP - Indirect Beneficiaries) Number of community/household members benefiting from an improved livelihood as a result of USG assistance	508,283
2	(IP) Number of Extension Agents trained as a result of USG-assisted programs	787
3	(IP) Number of farmers and others who have received new technologies or management practices support or training as a result of USG assistance	68,929
4	(IP) Number of farmers served by USG-supported agricultural extension agents	21,143
5	(IP) Number of Ministry of Agriculture and Irrigation (MAI) facilitates rehabilitated with USG assistance	7
6	(IP) Number of ministry staff trained with USG assistance	67
7	(IP) Number of people with access to improved drinking water supply as a result of USG assistance	22,833
8	(IP) Number of rural households benefiting from USG interventions	25,953
9	(IP) Number of VET staff trained as a result of USG-assisted programs	134
10	2.2.3-3 Number of Local Mechanisms Supported with USG Assistance for Citizens to Engage their Sub-national Government	46
11	Number of employment placements provided to at-risk groups as a result of USG assistance	240
12	Number of new practices or technologies introduced directly related to improving livelihoods as a result of USG-assistance	7
13	Number of persons receiving new employment or better employment (including better self-employment) as a result of participation USG-funded workforce development programs	120
14	Number of training opportunities directly related to improving livelihoods provided to at-risk groups as a result of USG assistance	2,031

[18] Community Livelihoods Project Agricultural Fact Sheet (June 2010-June 2014)

Table 5: Outputs According to the CLP Agriculture Unit

	Outputs	
1	People who benefited from cleaning of Marib Dam canals	39,228
2	People trained under value chain activities (Farmers, extension agents and private agriculture sector technicians)	5,448
3	Farmers who benefited from livestock vaccination campaigns (PPR and Sheep Pox)	62,204
4	Families who received inputs and technical support for sheep fattening	360
5	Households who received training and inputs for domestic food production	3,250
6	Students from faculty of agriculture-Sana'a university trained on efficient irrigation systems	400
7	Students from faculty of agriculture-Sana'a university trained on rainwater harvesting	360
8	Demonstration sites, solar powered greenhouse, rainwater harvesting, and drip irrigation	13
9	Horticulture and coffee nurseries; 50% owned by females	21
10	Establishment of Federation of Yemeni Beekeepers	1

6.3. Preliminary Outcomes of the Agriculture Program

This section presents the preliminary outcomes of CLP agriculture sector interventions based on new data from farmer focus group discussions, and a survey of farmers using a structured questionnaire – both of which were undertaken as part of this evaluation – and from an internal review conducted by Apex Consulting on behalf of CLP to assess the impact of grants implemented between July 2010 and June 2012.

The 2014 CLP PMEP contains two results indicators for the agriculture sector, corresponding to CLP Sub-Intermediate Result (IR) 1.1.1: Agricultural productivity increased: IR Indicator No. 1.1.1 "Number of hectares under improved technologies or management practices as a result of USG assistance"; and Output Indicator 1.1.1.2: "Number of farmers and others who have applied new technologies or management practices as a result of USG assistance".

In the absence of a CLP estimate for this indicator, the evaluation team used data from the Farmers Questionnaires to calculate the outcome using the following methodology:

The number of hectares, H, under improved technology is calculated as: $H = N \times R \times A$

Where N = number of Farmers Trained; R = Adoption Rate, defined as the percentage of farmers that have adopted one or more new technologies or practices on their farm,[19] and A = the average area on which new technologies/practices are applied.

6.3.1. Rate of Application of Technologies and Agricultural Practices Promoted by CLP: From the Farmers Questionnaire it was found that 78% of horticulture and coffee growers have applied at least one CLP new technology/practice (Table 6), and the average area on which

[19] Application vs. Adoption. Currently, the Feed the Future Indicator Handbook defines the number of farmers and others indicator (as measuring the "application" of improved technologies and practices by farmers and others. Although subtle, this is distinct and different from "adoption" of improved technologies and practices. Application is the use of technology or management practice by a farmer or other producer over at least one crop season or equivalent production period in the case of livestock or fisheries. Adoption is the use of technology or management practice by a farmer or other beneficiary in a sustainable way over an extended period of time .

new technologies/practices are applied is 0.77 hectares (Table 7).

Table 6: Application Rate of CLP Agriculture Technologies and Practices

Intervention	Sample Size	Number of Farmers Who Applied 1 or more technologies or	Application Rate (%)
Horticulture	60	47	78%
Coffee	71	55	77%
Honey	15 (*)	12	80%
Household vegetable gardens	31	26	84%

(*) Responses not from questionnaires but from beekeepers during focus groups discussions.

Table 7: Average Farm Size and Average Area of Application of New Technologies and Practices

Governorate	Average Farm Size (Ha)	Average Area of Application of New Technology/Practices (Ha)
Sana'a	1.99	1.27
Taiz	1.45	1.07
Raymah	0.82	0.06
Ibb	3.07	0.72
Lahj	0.02	0.02
Average	1.34 (weighted av.)	0.77 (weighted average)

CLP records indicate that 68,929 farmers have received new technologies or management practices support or training as a result of USG assistance (N = 68,929).

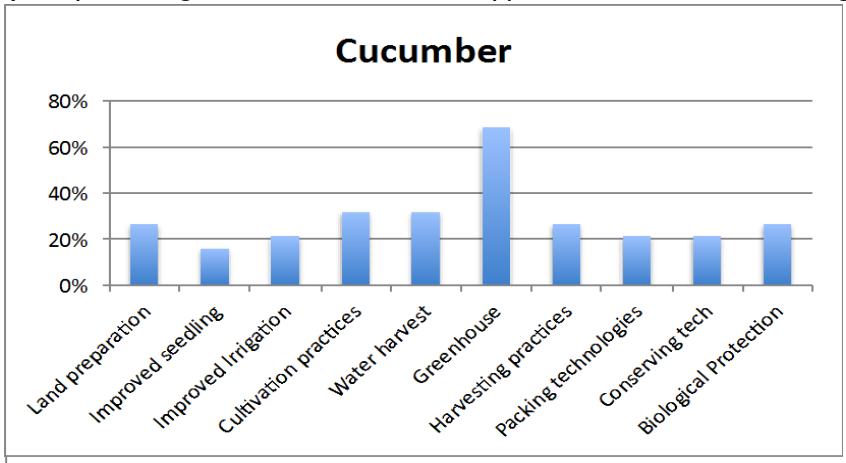
Using the formula *H = N x R x A*, the number of hectares, H, under improved technology is estimated to be (68,929 farmers x 78% application rate x 0.77 hectares = 41,400 hectares).

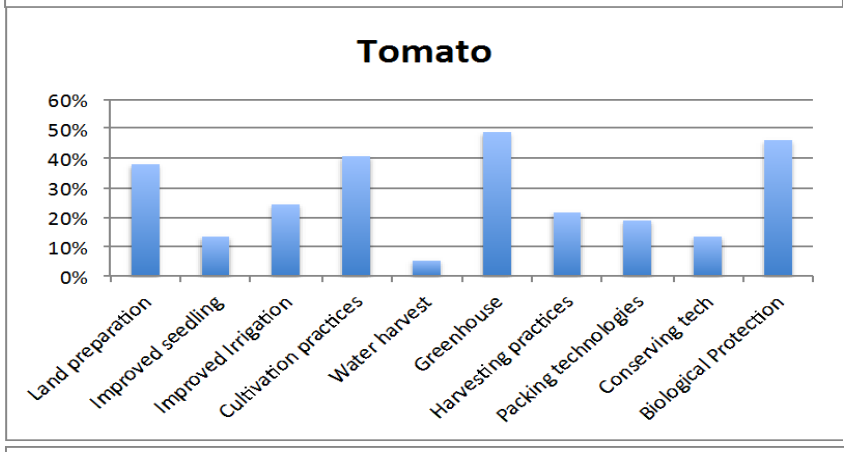
Considering that the total crops area in the 5 target governorates is 427,810 hectares, [20] the surfaces calculated here as being under new technologies represents nearly 10% of that area. The number of beneficiary farmers represents 13.4% of the total number of farmers in the 5 governorates.

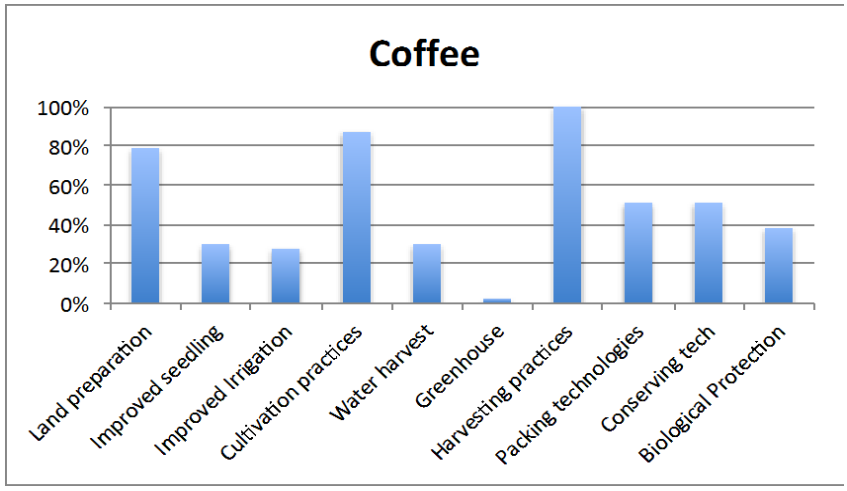
[20] MAI Statistical Report 2013; the crop areas in the 5 governorates (Tiz, Ibb, Sana'a, Raymah and Lahj) represent 28% of the total crop area of Yemen.

6.3.2. Technologies Applied in Horticulture: Figure 3 shows that among farmers who adopted CLP-promoted technologies and practices, for the farmers who applied one or more technologies or practices, the percentage who applied each technology/practice on the three principal crops, by number of growers: tomato, cucumber, and coffee.

Figure 3: CLP Technologies and Practices Applied by Crop
(As a percentage of those farmers who applied one or more technology/practice).







6.3.3. Impact on Production of Value Chain Crops: For those farmers who adopted CLP-promoted technologies and practices, Table 8 compares the productivity before CLP and after CLP interventions. The evidence suggests that CLP interventions have had a marked positive impact on productivity for those who have adopted CLP technologies and practices.

Table 8: Comparison of Average Volume of Production of Principal Annual Crops Produced with CLP-Promoted Technologies and Practices

Crop	Sample Size	Before CLP (Ton/Hectare)	After CLP (Ton/Hectare)	Percentage Change
Tomato	37	1.89	3.27	73%
Cucumber	119	1.88	4.28	128%
Potato	14	0.25	0.62	148%
Grapes	12	0.14	0.89	536%
Peaches	10	1.85	2.58	39%
Honey	14	51 kg	80 kg	57%

Source: Questionnaire of Farmers

The percentage change in production, ∂P, is calculated as follows:

$$\partial P = \frac{(P_A - P_B)}{P_B} \times 100\%$$

Where P_B is the volume of production before CLP and P_A is the volume of production after CLP. For farmers who adopted greenhouse technology, the impact on productivity is particularly marked (Table 9).

Table 9: Comparison of Average Volume of Production for Farmers who Applied Greenhouse Technology

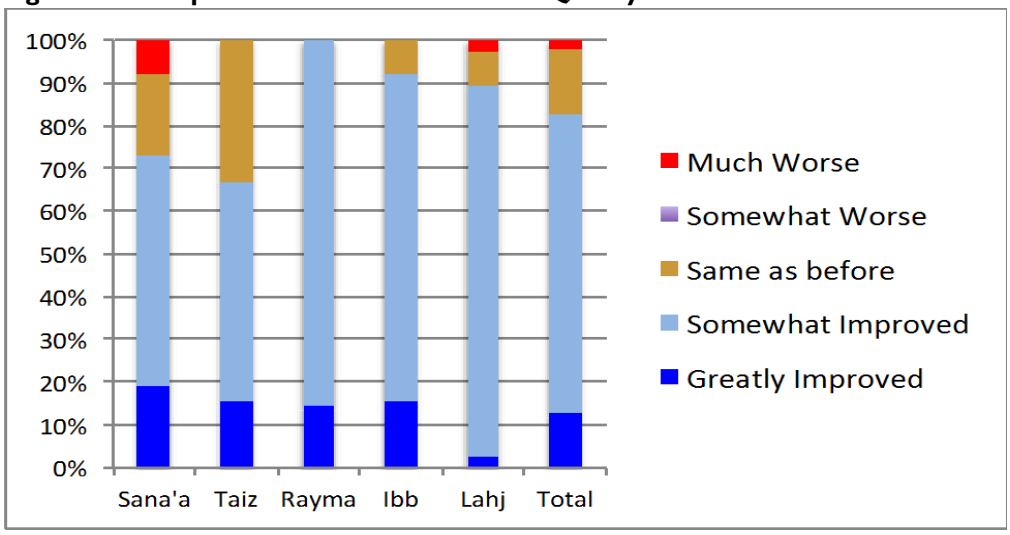
Crop	Before CLP (Ton/Hectare)	After CLP (Ton/Hectare)	Percentage Change
Tomato	5.1	19.0	273%
Cucumber	7.1	11.5	62%

Source: Questionnaire of Farmers

6.4. Perception of Beneficiaries on the Quality of MAI Services in their Community: Figure 4 shows the responses of beneficiaries to the following question: "Compared to before CLP interventions, how do you perceive the quality of MAI services in your community?"

Overall, 82% of respondents indicated that MAI services have somewhat improved or greatly improved. Only around 70% of respondents in Taiz and Sana'a felt that services have improved, while in Ibb and Lahj 90% or more indicated that services had improved.

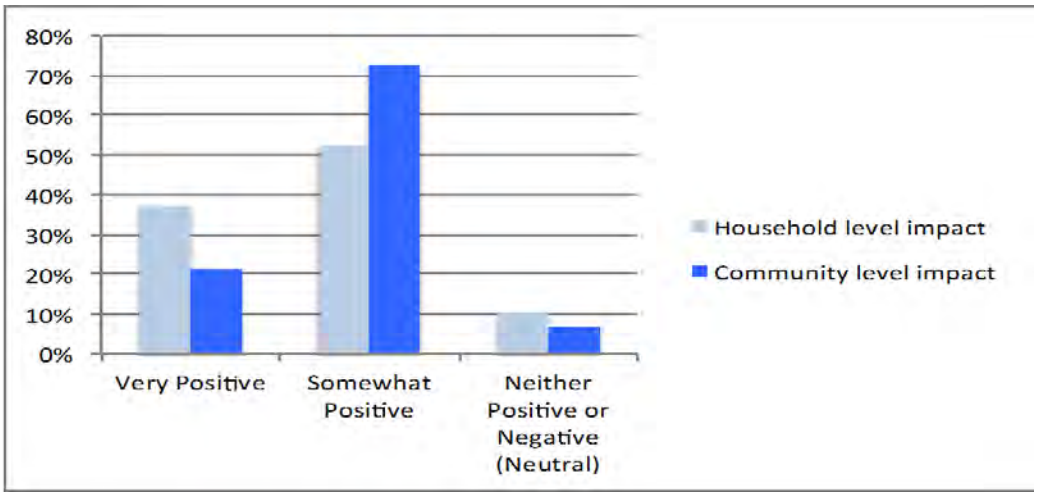
Figure 4: Perception of Beneficiaries on the Quality of MAI Services in their Community



6.5. Perception of Beneficiaries on the Impact of CLP Interventions at the Household and Community Levels: Figure 5 shows the responses of beneficiaries to the following question: "Overall, what has been the impact to date of CLP interventions on improving the livelihood of your household and your community?"

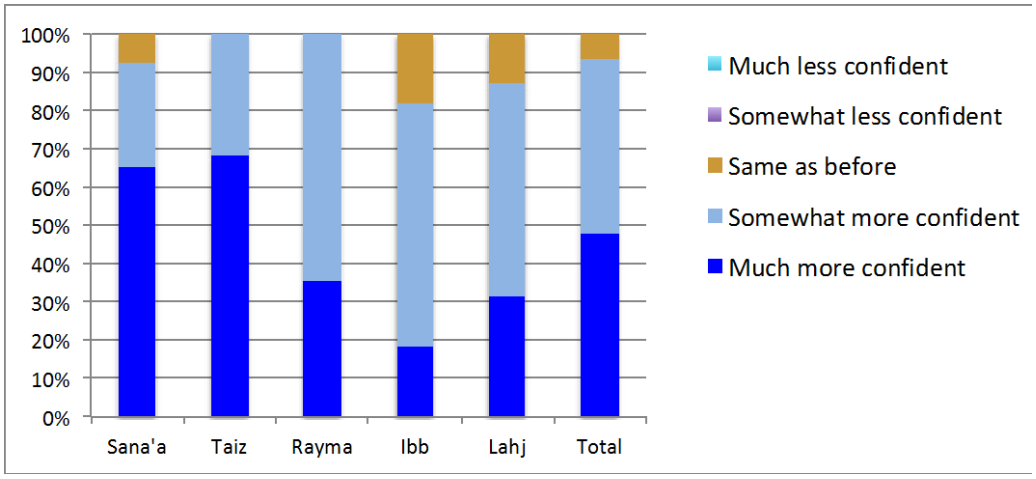
Both at the household and community level, around 90% of respondents indicated that the impact of CLP interventions have been very positive or somewhat positive. At the household level, 37% of respondents indicated that the impact has been very positive. At the community level, 20% of respondents indicated that the impact has been very positive.

Figure 5: Perception of Beneficiaries on the Impact of CLP Interventions on Improving Livelihoods



6.6. Confidence Level of Beneficiaries to sustain their Households in the Future: Figure 6 shows the responses of beneficiaries to the following question: "Compared to before participating in the CLP interventions, how confident are you of your ability to sustain your household in future?"

Figure 6: Change in Level of Confidence of Beneficiaries since Participating in CLP Interventions



Overall, 48% of beneficiaries feel much more confident than before; 46% somewhat more confident; and 6% indicated that there has been no change in their level of confidence. The greatest increase in the level of confidence was noted in Sana'a and Taiz, with the low increase reported in Ibb.

6.7. Impact on Income of Cleaning Dam Canals: In partnership with MAI Marib governorate, CLP completed the activity "Cleaning Marib Dam Canals for Cash-for-Work in Marib" by cleaning two Marib Dam canals. This canal system is the sole system that distributes irrigation water from the Marib Dam to farmland in the Al-Ashraf and Al-Jalal areas of Al-Madina district in Marib Governorate. The main canals and their branches are subject to being clogged by sand storms, reducing or stopping their flow. The canals had not been cleaned for five years. Table 10 shows the calculations that were made to estimate the impact of this grant on annual household incomes.

Table 10: Cleaning Dam Canals - Estimate of Impact on Income

Item	Code	Value
Total length of cleaned canals		54 km
Total irrigated areas (ha)	(A)	5,400
Increased crop production at least by	(B)	30% *
Value of production per ha ($)	(C)	3,000 **
Value of increased crop ($)	(1= A*B*C)	4,860,000
Irrigation cost per ha ($)	(D)	750 **
Reduced irrigation cost at least by	(E)	50% *
Savings on irrigation cost ($)	(2=A*D*E)	2,025,500
Gross additional annual benefits ($)	(G=1+2)	6,885,000
Total number of farms/landowners	(F)	5,400 ***
Gross additional annual benefits to each household ($)	(3=G/F)	**1,375**

Source: Apex Consulting "Internal Review for CLP Food Security Program USAID CLP Project. Final Report – Final Draft" - November 26, 2012Version 3.0.

6.8. Impact of Animal Vaccination Campaigns:
CLP contributed to animal vaccination campaigns for 10% of the total cost of the campaigns, thus efficiently using CLP resources to leverage MAI and other implementing partners'

resources. Estimates of net benefits and impact on income are shown in tables 11 and 12.

Table 11: Prevention of PPR and Sheep Pox - Estimate of Net Benefit

	Annual Benefit ($)	Annual Cost ($)	Net Benefit per HH ($)	No. of HH	Net National Benefit ($)
	1	2	(3=1-2)	4	(3*4)
Category 1: (1-5 animals/household)	150	60	90	204,334	18,390,069
Category 2: (6-10 animals/household)	300	105	195	102,167	19,922,575
Category 3: (> 10 animals/household)	750	225	525	34,056	17,879,234
Average benefit at household level	400	130	270		
Net benefit in 12 governorates($)					56,191,877

Table 12: Prevention of PPR and Sheep Pox - Estimate of Impact on Income

Item	Calculation	Value
Number of vaccinated animals		1,719,812 *
Household net benefits per year ($)		270 **
Net benefit per year in 12 governorates ($)		56,191,877
Mortality rate due to PPR and Sheep Pox		65% ***
Estimated potential losses per household ($)	(HH net) * (mortality rate)	176
Estimated potential losses, 12 governorates ($)	(national net) * (mortality rate)	36,524,720

* MAI/CLP reports
** Apex calculations based on Household Budget Survey (2006)
*** Estimation made by Apex

6.9. Summary of Focus Group Findings related to impact

A total of 26 farmers focus group discussions were convened, involving 755 farmers (453 men and 302 women) from five governorates where CLP intervened especially in its development phase (Taiz, Ibb, Sana'a, Lahj and Raymah), covering 17 activities. The details are given in Annex 5.

For MAI regional staff, there were also two focus group (FG) discussions -one held in Aden and one in Sana'a--which involved the general director, the extension services director and the women rural development director from the governorates of Taiz, Ibb, Aden, Abyan, Al Dhale, Sana'a, Al Amana, Lahj, Amran, Marib and Raymah, as well as the director of one NGO partner (Al Thuraya organization). Findings from FG discussions were used throughout the report as needed and in this section the focus is on those related to impact on production. A full report on the focus group discussions contents is presented in Annex 5.

6.9.1. Adoption of new technologies and practices and reasons: The practices introduced by CLP were all perceived positively by the farmers, who reported that they were able to see specific benefits from these practices on the growth of their plants, and improvements in volume and to the quality of their produce, and also saw comparative results from using the old practices they followed until now.

This did not necessarily translate into adoption by each farmer, as some conditions for individual use and adoption were not present; namely the access to financial resources and the availability of more water. Even in instances where farmers were not able to observe results on their own

farms from the new technologies, however, they still believed in the benefits of the new practices and technologies and expressed the desire to adopt them once better conditions were present.

Examples where the approval by farmers of the new technologies did not translate into high application rates are mainly drip irrigation and water harvesting, greenhouses, new modern beehives for honey production, and in livestock (production of feed). The reasons were largely financial, as the new technologies required financial resources that farmers said they did not have. Livestock farmers said they cannot individually afford expensive machinery (to bail the hay) and they did not have the formula to produce the feed that CLP had demonstrated. In beekeeping and honey production, some farmers expected CLP to provide new hives but did not get them and said they were too expensive for them to purchase without assistance.

Coffee farmers were highly positive about adopting new coffee practices ranging from seedling to plant care to post harvest practices. From 70% in Lahj to over 90% in Raymah, Taiz and Sana'a stated that they adopted all the CLP recommended practices. One farmer said about the new pruning techniques and irrigation "we were doing things the wrong way, they showed us how to do it right."

6.9.2. Impact on volume and quality of crops: In each focus group there were similar reports about the use of CLP-introduced modern methods and techniques resulting in a marked increase in the amount of production of vegetables and a reduction in production costs, in addition to the use of techniques and methods of modern irrigation resulting in higher efficiency in water use. Farmers reported a significant increase in the volume of crops produced in greenhouses: 300% in the case of cucumber and more than 150% in the case of tomato, compared to what is growing in the open land (Raymah). In Giblah district of Ibb governorate, the reported increase in the production of tomato and potato was from 20kg to 30kg (2 Qasbah=128m^2) and from 200kg to 250 kg (4 Qasbah = 256m^2), respectively, due to the adoption of selection of better potato seeds, improved tomato seedlings, organic fertilizer, and pest management practices. One farmer in Sana'a indicated that his use of drip irrigation produced a longer season and an increased number of harvests.[21]

For coffee growers, the results were also largely positive. In Lahj, the lack of water was the main reason many farmers could not have increased production or profits with reported yields of 9 kilograms per tree four years ago, and 5.5 kilograms now, yet the farmers recognized the improvements in the quality of existing coffee plants as a result of new pruning techniques. In Taiz, farmers used coffee seedlings from nurseries established by CLP and from one MAI nursery in Ibb and are anticipating results in a few more years; while in Ibb, the Director of Agriculture reported the two-year old trees were already flowering. In Sana'a the new practices improved the production by 30%, with farmers harvesting an average of 7 kilograms of coffee beans per tree as compared to 5 kilograms before they introduced the new practices (in-field practices, drip irrigation, pest management, post-harvest practices and marketing).

The impacts on the quality of the produce (such as for tomatoes, grapes, other) was recognized, including improvements in texture, color, taste, and rigidity that allowed better conditions for transportation to markets.

Home vegetable gardens were perceived positively with 90% of the gardens still in use, with a few

[21] Percentages based on the farmers' survey were reported earlier (section 6.3.3, tables 8-9), percentage given in FG discussions may be slightly different but they do show the same trend.

cases where the continuation was less because of lack of water. The need for additional investment in fences, pesticide, fertilizer, and seeds was mentioned.

6.9.3. Impact on water usage: Farmers were unanimous that modern irrigation techniques saved water and reduced the time needed to irrigate their crops. One farmer said: "We used to consume about 75 m^3 for one time, but now we just need to use 25 m^3 (one third)". A few had negative experiences and results because they had less water than before, whether from rain or underground sources, and thus used less water; so they suffered losses in production as a result of drought. Some Qat farmers wished CLP would also show them how to reduce water consumption in Qat as they recognized their current practices of flooding the plants were wasting too much water.

6.9.4. Use of pesticide: The use of pesticide was also reduced or eliminated among the large majority of farmers interviewed. MAI officials cited this as an important and current issue in two ways: the large volumes of pesticides present in the country from smuggling, and the inability of the MAI to have adequate testing of produce (especially fruit, and a specific case of pomegranates in Saa'da) for pesticide residue, resulting in non-exportability of the produce.

6.9.5. Impact on cost of production: The cost of production for those farmers who were able to provide precise answers decreased by 40% as a result of less labor and water and better productivity, but farmers suffering from water shortages reported spending more money on water than they used to, while others said that the additional care for produce, maintenance, post harvesting and marketing increased their expenses (but also added that income had also increased).

6.9.6. Greenhouses: Greenhouses stood out as relatively large investments that CLP introduced at demonstration sites. There is unanimity about the high impact of these units on productivity and their success in demonstrating profitability. There is also unanimity that the high cost of these interventions makes them inaccessible for small farmers. Solutions suggested include farmers associations, subsidies and credit, and attracting investors to partner with the farmer and make the financial resources available.

6.9.7. Home Gardens: Farmers and their wives involved in home gardens were unanimous in recognizing the benefits of this intervention and citing increased access to vegetables for their families, but less unanimous in assessing their chances of sustainability. A few agriculture specialists (four interviewed in Al Kahira district in Taiz) and one MAI official were less enthusiastic. Some indicated the lack of sustained sources of seeds and support because these gardens also need protection (nets, fences), need water that was not available, and their produce costs more than the vegetables already available in the market.

6.9.8. Beekeeping: interventions were highly praised but equally criticized as short-lived and incomplete (the failure to distribute new beehives was cited). CLP stated that they decided not to distribute since the local beehives were better than what they would bring from elsewhere. The cost of new beehives was said to be significant. In Taiz, CLP activities were limited to one training course on honey quality which has been provided to some trainees who are women employees of a former and no longer functioning project (Honey Production Development Project), and trainees were not directly involved themselves with current beekeeping and honey production. Of the beekeepers interviewed for whom the question of adoption of new technologies and practices was relevant, a majority of 80% indicated they had adopted CLP new measures.

In summary, nearly all of the farmers interviewed reported high levels of approval and acceptance for all of the technologies, although when it comes to the actual adoption as the application of specific technologies by the farmer in his/her land, two factors were cited widely as obstacles: the significant cost of some interventions (greenhouses, water harvesting structures and irrigation networks, new beehives, livestock equipment), and the lack of water resources.

6.9.9. Sustainability: The basic response from FG participants regarding sustainability of CLP interventions was "if it makes a profit, it will be sustained, by farmers who themselves have the funds, and by others who will receive credit and partner with investors." They believe that new practices and technologies that are accessible without the need for significant investment will be sustained because they produce better results and do not require of the farmers anything more than a change in their agricultural practices based on new knowledge. A fundamental caveat for crop production new practices was the availability of water--whether for crops that depend solely on rain or others that depend on underground sources.

The views of MAI officials at central and governorate levels on the sustainability of CLP interventions were gauged by asking whether they have included some of the new CLP components in their future work plans. With the usual caveat that plans are only good to the extent that they are funded, all directors of agriculture in the governorates said that they would include practices such as modern irrigation and improved production practices, but that they have been used to the pattern of producing plans that, as they said, remain "just ink on paper." At the central level, many of the CLP practices are found in the agriculture strategy that the MAI developed with help from IFAD, and some are part of the activities that are being supported by the Yemen Agriculture Promotion Fund with international assistance from IFAD, the World Bank and individual countries.

The Minister of Agriculture stated at the inauguration of the Competitive Agriculture Systems for High Value Crops (CASH) Project that the Ministry will help provide additional support to increase access to this technology. USAID is also coordinating with the World Bank's $38 million Smallholder Agriculture Productivity Enhancement Project to support drip irrigation and greenhouse technology.[22]

6.9.10. Perception of MAI extension services: Farmers group discussions addressed the topic of impact of CLP intervention on the extension workers and the perception of MAI. In Ibb, a farmer expressed the overall view as follows: "Before CLP, the extension services workers have never visited our fields. Now, the situation is better, we have seen extension workers came from the Ibb office with CLP staff to our village. They try to help us by providing advisory services related to the coffee crop and other horticulture crops. However, we are not sure if they will continue to visit us after the CLP project ends". In Lahj, a third of the participants said there was improvement but as one of them said "services are improved compared to two years ago (2012) but they still are not at the desired level."

Among directors of extension services and other MAI officials there is a clear recognition that the extension work in the governorates would not have been working at all were it not for CLP help. Yet everyone was always quick to add that this help "is not enough", and "should not stop."

[22] Source: USAID comment to draft version of this report.

7. LESSONS LEARNED, CONCLUSIONS and RECOMMENDATIONS

7.1. 1. Lessons learned: Why was CLP successful?

From the point of view of CLP beneficiaries, these are some of the reasons behind what they perceived as CLP success.

- Citizen participation, participation of local authorities in decision making, participation of local associations, and using a good mechanism through the governorate authorities.
- Having identified precisely the governorate needs, and the ability to respond to needs.
- The selection criteria were clear and transparent, selection of the poorest families, also selecting farmers who were interested and in good locations.
- In providing training, theoretical training was also accompanied by hands on practical application.
- The role of the CLP coordinator was positive, with several frequent monitoring visits from technicians and engineers.
- Involving women was positive.
- Introducing new modern practices that were needed by the farmers, the project results were visible within short periods of two to three months from the start. Credibility is established when people see the results themselves, and tangible results were observed by farmers.
- Reestablishing the trust between farmer and extension service agents.

7.1.2. Lessons learned: What parts of CLP were less successful?

- Lack of direct cooperation with the Agriculture Office in some cases.
- Distribution of benefits to people who are less in need of assistance than others, who are not included; conditions for selecting sites for GH and nurseries favor rich farmers as they are more likely to have their land close to a main road, and have water; targeting limited areas.
- As a result of the good results, more demands and pressure on the MAI office to provide support to more farmers, but no way to respond.
- Free distribution to communities is wrong; beneficiaries should contribute to the project costs.
- Trainers were always brought in from Sana'a, instead of using the relevant governorate resources.
- Stopping short of delivering promised items (such as for honey production) creates lack of credibility.
- In new livestock practices, CLP could not provide the expensive machinery needed because the grants were not sufficient for important investments, so they provided cheaper items like feeding troughs but could not provide machines to cut the feed and pack it into bales so farmers could not be trained on using them.
- The project period was very short and activities restricted to only limited areas and targets. In Dhamar, CLP did not have home gardens or chickens.

7.2. CONCLUSIONS

1. The CLP agriculture program was challenged to reconcile different priorities: take a new grass-roots, community-focused approach on one hand, or continuing to work through the Ministries at the Central and Governorate levels, and reconciling its agriculture development priority with integrating an urban focus.
2. The original project design, as a stabilization strategy approach, was not followed. The CLP design suffered from issues of limited time to disseminate the main innovations it demonstrated. Some of these were inaccessible to poor and landless farmers.
3. CLP succeeded in continuing to build upon previous USAID achievements in the sector and

in introducing new technologies and practices within a development perspective that paved the way for the next (current) USAID agriculture project.

4. CLP exercised flexibility in trying to reconcile the stabilization approach with a sector based strategy and was responsive to USAID refocus on urban areas- although this urban refocus was questionable as an agriculture development priority.
5. There were limited examples of combining with other sectors such as in education with water harvesting for school gardens, home vegetable gardens for food security, and disease prevention through silver water filter distribution.
6. The opportunity of CSO-capacity building through the grant mechanism was missed and, along with it, a key ingredient of sustainability.
7. While working with the MAI extension network provided a degree of capacity-building for sustainability, and although the interventions were highly responsive to local needs and highly appreciated, the degree of involvement and participation of partners in the processes of planning implementation and monitoring was less than optimal and not conducive to ownership.
8. CLP planning for sustainability was adequate as the ingredients were present but implementation was not, primarily for fear of losing control and for lack of time. The main assurance of sustainability is that USAID's next agriculture program will build upon and disseminate CLP achievements.
9. The overall level of adequacy in planning was a decent 70%, lowered mainly by a weak score on the ability to set timelines and realistic milestones. The PMEP process was improved mainly toward the last part of the project, and outcome indicators specific to agriculture were developed only toward the end of the project. The monitoring system was improved by adding personnel and setting up guidelines, and CLP cooperated positively with YMEP in applying lessons learned from YMEP third-party monitoring and from external evaluations.
10. The overall number of beneficiaries may have been overestimated by 14%, but there is also an underestimation due to the fact that available data did not cover the last year of the project and some CLP activities results were omitted from the count.
11. The M&E systems were gradually improved but could not compensate for the lack of appropriate design at the start and the lack of a baseline. Output and outcome results of the agriculture sector were not defined until later in the project as the sector was under the economic development component. CLP would have been better managed and monitored if there were output indicators with timelines and annual targets as well as interim and end of project outcome indicators.
12. M&E implementation was 18% for monitoring and 30% for final evaluations, undoubtedly affected by the security concerns and the inability to execute as many field visits for M&E as were required by CLP guidelines. CLP coordinators could have played a more systematic role in this area if the M&E unit and CLP Ag Unit worked more closely together.
13. CLP quarterly reports did not provide information that would make it possible to assess actual against planned performance.
14. Extension networks in targeted governorates benefited from support and farmers largely acknowledged the positive change in extension services in terms of frequency of visits and quality of advice and help, but the level of support is far from sufficient to properly rehabilitate the network.
15. The level of actual funding was 68% of the funding level stated as approved in the SOW. The direct portion of the funds (5.76M or 55%) financed up to 71 grants, an average of about 150,000 per grant, and at a cost of US$ 9 per beneficiary. The significant under-expenditure, and the high level of indirect costs, contributed to further reduce the project's ability to make a bigger impact.
16. Given the demonstration nature of the project development phase it would not be reasonable to expect a sector wide impact or a significant impact on communities' livelihood. On the other hand, the livelihood of direct beneficiaries and their families was positively impacted in a limited number of locations in a limited number of governorates and districts.

17. Comparisons of outputs to plans were often rendered difficult by the lack of clear output targets and the lack of alignment between work plans and subsequent periodic reporting. An outcome indicator was calculated by the evaluation team in terms of number of hectares improved as a result of CLP technologies using the number of beneficiaries and adoption rates calculated by the evaluation team. Adopted changes led to impressive increases in volume of production in specific crops but the surfaces of land under new technologies were understandably a modest 10% of the overall cultivated surface in the targeted governorates.
18. While CLP used both grants and direct implementation, the change from one to the other was not related to differences in effectiveness, and CLP often managed grants as if they were direct implementation and achieved more control. Opportunities for community participation and ownership through the grant system, as well as capacity building of agriculture CSOs, were not fully exploited, although the interventions were highly praised and needed by their beneficiaries.
19. Sustainability ideas were part of the design but implementation lagged behind. CLP did not plan adequately for time needed for dissemination nor for developing mechanisms to make the new technologies more accessible such as through credit or cooperative schemes.
20. There was no capability to collect information on projects subsequent to their completion for follow up support or to find out if they were continuing. The potential for MAI extension workers and local farmer associations to take over this task was not achieved and is recognizably difficult to do in the absence of continued support to these entities given their actual lack of capacity.
21. CLP succeeded in building agreement with associations and private farmers to continue the use of demonstration sites but the task of enforcing these will fall to the MAI after CLP closes.

7.3. RECOMMENDATIONS

As per the SOW, a list of Do's and Don'ts for the new project(s) is offered below, based on the findings of this evaluation with reference to something that CLP did well or could have done better. This listing is not meant to be a complete list for project design, planning or operations.

7.3.1. Do's:

1. Future projects (i.e. CASH) need to continue to carry out dissemination and promotion of the new technologies, and reinforce adoption among farmers of such technologies.
2. The new USAID project should verify whether sustainability clauses in grant agreements under previous projects (i.e., CLP) were implemented; ex-post monitoring visits can also be undertaken by YMEP after the completion of individual grants to verify that the clauses are enforced.
3. The new projects should be based on participation of beneficiaries and should use methods and techniques to promote ownership such as support groups to provide farmers and extension agents alike with learning and solutions through exchange. The Improvement Collaborative approach is one approach known to have worked in agriculture, health and community projects as a method to rapidly disseminate new behaviors and best practices.
4. Future program design should include complementary activities such as working to create and strengthen farmers associations; and innovative financial mechanisms that would help increase the accessibility of expensive technologies. One possible model is a greenhouse rental option, whereby an input supplier might, in collaboration with a farmers' association, install greenhouse technology on land owned by the association and rent greenhouse use to the farmers. The same model can apply for other expensive farming equipment. Other models can introduce middle technologies such as greenhouses fabricated locally from available supplies and at reduced costs (as was done by farmers in Raymah under their own initiative), and the introduction of the cheaper alternative of using plastic tunnels or covers.

5. USAID should require that future PMEPs include the financial aspects of the project. The cost of achieving the annual output targets need to be reflected in the annual planned disbursement plan, and one of the indicators of efficiency should be the cost of achieving each unit of output for each output indicator.
6. USAID cross cutting themes of poverty and gender should be integrated in future projects to ensure project impacts are also conducive to reduce poverty and improve gender awareness. Positive agriculture results that are very positive in themselves can be seen as maintaining the status quo and as potentially non-beneficial to either priority. The CLP project did not improve the condition of women as much as it could have if women were more highly targeted. Farmers who are poor and landless saw the greenhouses as a very effective solution, but also saw these as more helpful to rich farmers while poor farmers became frustrated at not having access to these improvements.
7. Integrate gender strategies in future programming. As an example of gender sensitive programming, grants to strengthen the MAI extension services would include activities aimed at increasing the percentage of female extension agents, and providing training and awareness-raising to MAI officials and male extension agents, on the key role that women play in agriculture, as well as the importance of designing interventions that adequately reflect the role and the needs of both women and men. Other activities should involve rural women in the management and business side of agriculture, and not just as providers of free labor. Extension workers can involve those women who are part of the farmer's family in the education sessions where the farmers (men) husbands are usually counseled by agriculture extension workers; to facilitate this, female extension workers can work in pairs with male extension workers. Interventions should be designed to create opportunities for men and women to be involved together in some decisions, such as by encouraging inter-spouse communication. This was done successfully in the health field for matters where the husband is also seen as the decision maker, while the activity involves women and children's health.
8. Integrate gender strategies within the project human resources strategy to step up the change process. USAID projects should model improved practices by hiring rural female staff in field management positions, and send a clear message that the project does not subscribe to a hiring practice that diminishes the role of women.
9. New USAID agriculture projects should set up alternative sources of sustainable support for the farmers, such as by establishing NGO or private sector-based Farm Service Centers, using a model already developed by USAID in Ethiopia. These FSCs have a uniform branding and logo usage and maintain a similar floor plan that includes a crop showroom, veterinary showroom, community training room, environmentally sound storage facilities, and office space.
10. Invest in institutionalizing training on new practices in the basic curriculum of the agriculture staff, and delivering this at the level of the university agriculture specialists, or at the level of vocational training for extension agents, or at the level of the MAI continuing education system, if available.
11. In order to adequately measure (and attribute) preliminary outcomes, future projects should use a quasi-experimental design in which beneficiary farmers are compared to non-beneficiary farmers in similar socio-economic and agro climatic conditions.
12. Future agriculture sector program M&E systems should be able to provide accurate and timely information for operational and strategic planning and include baseline information, output indicators with annual targets, intermediate outcome indicators that can be measured during the life of the project, and end-of-project outcome indicators.

7.3.2. Don'ts:

11. Do not drop integration from the agenda of the new project, and miss opportunities to integrate with other community livelihood activities (education, health, social services). Schools are top choice venues for farmer's education and agriculture shows; health clinics are suitable sites for integrating agriculture education for women related to improving nutrition; and behavioral change communications, usually used in the health and social sectors, are also needed in agriculture.
12. Do not promote new activities or technologies without a clear dissemination plan that is fully contained within the life of the project duration.
13. Do not demonstrate new solutions to potential beneficiaries without a plan to make them accessible, including through awareness about availability within other agencies or programs, by coordinating with and referring to such programs. (For example, the agriculture promotion fund and others by the MAI).
14. The lack of capacity of local CSOs is not a valid reason to not work with local organizations. Building such local CSO capacity should be part of every assistance project.
15. Do not misapply the grant mechanism by running it as you would run direct implementation and lose the benefits of the process such as participation, capacity building, empowerment and ownership among beneficiaries and partners.
16. Do not follow a blueprint or "cookie cutter" approach and replicate it in all target regions without proper analysis of fit and adaptation as needed in each region.
17. Do not introduce new practices and products without proper testing with the target site and population and making sure there are no negative rumors or misconceptions about these new elements.
18. Do not give subsidies without adequate education about their limited scope and temporary nature if subsidies are used. Subsidies are not sustainable and develop dependency instead of encouraging self-reliance. Small handouts of materials and things that recipients can easily acquire on their own eventually will be seen as insignificant, whereas investing the same resources in significant infrastructure, that is out of reach of any individual farmer, will be recognized for its lasting impact.
19. Do not bypass or sideline local authorities, local leaders and organizations and do not miss opportunities to involve available local organizations as implementing partners.
20. Do not diminish credibility by cancelling or changing activities without properly informing the potential partners and beneficiaries, and ensuring they fully understand the reasons.

8. ANNEXES

Annex 1. Scope of Work

CLP Agriculture Component Evaluation Scope of Work

Background on Community Livelihoods Project (CLP)

Development progress in Yemen is a major foreign policy priority for the U.S. Government. Over the past few years, Yemen has suffered from a struggling economy, limited opportunities for a large youth population, rapidly growing population, unequal development, declining government revenues, growing natural resource scarcity, tribal and regional conflict, and violent extremism. The complexity of Yemen and the breadth and intricacy of these challenges require a holistic programmatic design that simultaneously attempts to address these challenges strategically and rapidly.

The Community Livelihoods Project (CLP) started out as a USAID-funded program that supported the Yemeni Government in achieving its self-identified goals to reach remote communities and build linkages with villagers in targeted governorates. Later on, USAID changed CLP focus on urban areas, except for the agriculture program. The implementer of CLP is "Creative Associates International". CLP works closely with the Republic of Yemen Government (ROYG) to address the youth bulge, poverty, and unemployment by improving livelihoods, access to public services, strengthening community participation, and building the capacity of local government. The project's success requires close collaboration and coordination with the ROYG, particularly at the sub-national level.

CLP uses both grants and direct implementation mechanisms to meet community needs in education, health, water, agriculture, among other sectors and various development approaches. Operationally, CLP utilizes relatively simple, low-cost but high-impact grants to fill immediate gaps in community development that can be completed within a few months. Longer term interventions link short term interventions (grants) with development approaches to ensure sustainability.

CLP multi-sectoral approach works across technical programming areas including: health, education, economic growth and agriculture. CLP has currently dropped the governance component and is only implementing through three principal components:

Component 1: Improving Livelihoods

Component 2: Increasing Access to Quality Basic Services

Component 3: Promoting Community Participation and Empowerment

CLP Results Framework

USAID/Yemen's FY 2010 – FY 2012 Strategy has the following stated goal, "Yemen's Stability Increased through Targeted Interventions in Highly Vulnerable Areas." The strategy is further organized under two Assistance Objectives (AOs) and five Intermediate Results (IRs) as listed below, with Assistance Objective 1 focusing on service provision and Assistance Objective 2

emphasizing capacity building.

Assistance Objective 1: Livelihoods in vulnerable communities improved.

Intermediate Result 1.1: Employment opportunities increased.

Intermediate Result 1.2: Access to and delivery of quality services improved.

Assistance Objective 2: Governance capacities to mitigate drivers of instability improved.

Intermediate Result 2.1: Public policies and institutions facilitate more equitable socio-economic development.

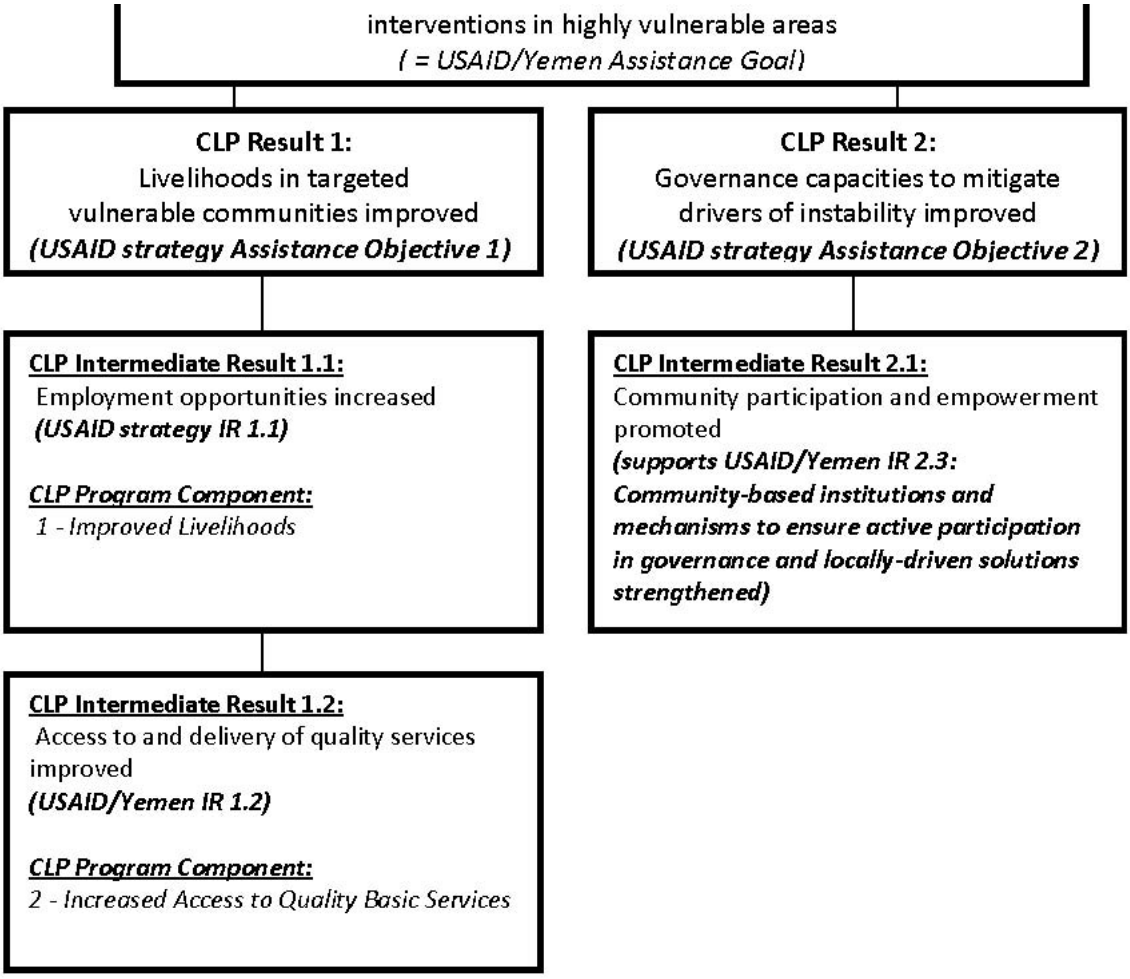
Intermediate Result 2.2: Local governance and basic service provisions addressing community-level needs improved.

Intermediate Result 2.3: Community-based institutions and mechanisms to ensure active participation in governance and locally-driven solutions strengthened.

The development hypothesis for CLP is that targeted development interventions at the subnational level can positively affect stability in Yemen. Implementation of this project tests this assumption. CLP directly supports USAID/Yemen 2009-2012 strategy; CLP goal is identical to that as articulated in the strategy, with CLP results framework matching the strategy's two AOs. CLP four program components contributing to the achievement of four Intermediate Results, which match or directly support four of the 5 IRs contained in the USAID/Yemen strategy. The linkages between the USAID/Yemen country strategy and CLP PMP Results Framework include four Program Components as outlined below. The Economic Development/Agriculture technical sector is one of five program sectors integrated within the overall CLP Strategy, including, Education, Health and Governance. This paper outlines the scope, direction and proposed interventions the Agriculture sector will take in order to achieve both immediate as well as long-term goals:

Figure 1: CLP Results Framework

CLP Goal:
Yemen's stability increased through targeted



CLP Vision for Agriculture

CLP is capitalizing on the previous work done under Yemen Agricultural Support Program (YASP) for enhancement of agro-based economic activities in the project governorates to improve employment opportunities and economic growth of rural men and women on a sustainable basis. CLP agricultural sector strategy involves a focused approach that seeks to improve productivity and income through support to key partners, such as Ministry of Agriculture and Irrigation (MAI) and private input suppliers and service providers. This plan is to improve the ministry agricultural services through urban hubs and remote extension centers in order to reach remote, formerly unsupported rural farming communities. By improving and expanding the delivery of quality agricultural services to Yemeni farmers, improving crop yield and livestock production, improving packaging, increasing accesses to markets, and helping to establish or strengthen larger and more efficient enterprise associations, the strengthened sector will generate sustainable jobs for youth. The project was also to promote agri-business to meet demand for goods and services in rural areas. For example, CLP partner Small Micro Enterprise Promotion Service (SMEPS) has already supported small nurseries that provide farmers with more advanced horticultural products that increase production.

Improving the value chains for agriculture will have strong economic growth potential, and offer opportunities for export expansion, import substitution and rural job creation. CLP- envisioned end-state involves a sustainable system of MAI extension centers that provide quality agricultural services and community-led farm enterprise development structure the develops 2,500 farm

producer groups, 1,000 off-farm enterprises, and 300,000 workers possessing agro-processing skills to impact half a million Yemenis in the project governorates.

From July 2011 to June 2012, the USAID- funded Community Livelihoods Program (CLP) focused mainly on relief and stability based activities through small grants such as rehabilitation of extension centers, training extension agents, farmers and women, demonstration of domestic food production, providing safe drinking water, demonstration of rooftop rainwater harvesting for school gardening, livestock vaccination against PPR and Sheep Pox and cleaning of canals.

Since July 2012 CLP implemented activities to support agricultural production in coffee, high value horticulture and honey with development perspective. By partnering with the Ministry of Agriculture and Irrigation (MAI), CLP beneficiaries include farmers, associations, women's groups, and private enterprises. CLP trains farmers by developing demonstration sites that highlight drip irrigation, solar greenhouse and water conservation and management technologies. These demonstrations have shown farmers that adopting these technologies increase agricultural production, reduce input costs, and thereby help make agriculture sustainable.

For example, CLP worked with MAI and the Sawan Farmers' Cooperative Union to construct a solar-powered greenhouse with drip irrigation at the Association's farm in Sana'a to serve as a demonstration and training site. The Sawan Agricultural Demonstration Site currently showcases a greenhouse that has successfully demonstrated it is capable of producing at least eight times as many vegetables as a traditional field while using significantly fewer pesticides (less than 10 percent of the amount normally used in other greenhouses) and saving 70% water; a solar panel that powers a temperature-regulating fan in the greenhouse as well as a water pump; and a highly efficient drip irrigation system. A rooftop rainwater site was also established at the site so the greenhouse would have a fully sustainable source of water rather than pull water from an already stressed groundwater supply.

These activities aim to increase public awareness of the problems, obstacles and possible solutions to make agriculture sustainable and address the scarcity of Yemen's water resources. As a cross-cutting issue the demonstration of rainwater harvesting include maximizing the efficiency of the stored rainwater for agriculture during the drought periods, demonstrating the effectiveness of best irrigation technologies, and showcasing how to make the best use of depleting water resources. Awareness raising and training are another aspect of the project, this consisted of organized field days and practical sessions geared to transferring the demonstrated technologies from the proposed project to the MAI staff, service providers and producers.

Purpose and use of this evaluation

This is a performance-based evaluation, the purpose of which is to assess the timeliness and effectiveness of CLP agricultural program. In order to provide USAID with recommendations to be considered while implementing new agricultural programs, the Mission would like to document the factors that have contributed to successful implementation, the challenges CLP has faced while implementing the various agriculture intervention activities in the program and the actions taken by CLP in to those challenges. With the strong agricultural relationship that CLP had developed with the MAI and also with base they have created for the value chains, USAID would be interested in what are the ten must dos when implementing the new program and what are the ten things to avoid during implementation.

Suggested Evaluation Questions

1. How well has CLP approach and intervention to agriculture support the project objective of Yemen's improving livelihoods of targeted communities? What were some examples of successful integration between agriculture and other components of improved livelihood? How adequate

was the project design and logical framework? What changes did CLP introduce to its original design, approach and activities to respond to USAID's refocus? What are/were the main new challenges CLP faced while implementing the various agriculture approaches and interventions? Were the main challenges already known to USAID and CLP when the project started, and if so, what did CLP do differently to modify its approach and address these emerging challenges?

2. Has CLP been successful in building upon, maintaining and/or strengthening successful components of MAI and NGOs programs that benefited from prior USAID funding? CLP started in 2010; the agriculture funding level was over $15.4 million for the life of project. To

what extent does the size/number of outputs/deliverables/achievements reported by CLP reflect the resources utilized in relation to time and funds provided to the agriculture program?

3. Interventions that USAID has supported through the years include agriculture extension, farmers groups, women's groups, etc. Based on the evaluation of the efficiency and effectiveness of these interventions, how important is support of these types of interventions in future USAID programmatic funding in Yemen to improve agriculture production?

4. How does CLP prepare for and apply sustainability methodology and approaches in the design of and while implementing its agricultural activities and how effectively does CLP monitor the sustainability of its interventions and take follow-up action to resolve issues? Related to this, how did CLP hand over grants and their related activities when they ended to the beneficiaries/communities to the appropriate entities?

5. The implementation mechanisms used by CLP include sub-grants and direct implementation. What are the advantages/disadvantages of each approach? And, which approach provides better outcomes/impact for the investment provided and is more suitable/recommended while implementing agricultural interventions in Yemen, and why? How effective were each in implementation and how timely were the interventions? With regard to CLP approach of using the grant mechanism, was CLP able to maintain proper control of the technical direction, maintain quality standards and achieve the planned results? Did the grant mechanism lead to increased community participation innovation and initiative? Did CLP make a comparison of how well it performed when implementing directly versus through grantees? Did CLP adequately assess the implementation capacity of grant implementers and did CLP provide adequate support to strengthen the implementation capacity of grant implementers? Was CLP experience and lessons learned with grants in other sectors (Health, Education) of any relevance and applicability to the agriculture sector?

6. Due to the volatile and changing security status among other challenges in Yemen, CLP monitoring system relied on their agriculture field staff. How well has this monitoring system functioned and how effective has the flow of information been between the center and the field? How did CLP compensate for or address the known problem of lack of reliability of agricultural data and service statistics in order to report properly on agriculture activities and results, and how effective was this response?

7. The CLP project has reported to USAID/Yemen on the number of beneficiaries reached, how accurate are the data provided on numbers of direct and indirect beneficiaries?

8. What recommendations does the assessment team have for USAID/Yemen to consider when implementing the new agriculture project? Based on evidence and results, what activities have been deemed successful/ promising, what approaches and strategies does CLP find more promising or successful and recommend for future programming?

9. How effective was CLP operational planning capacity for individual grants? How adequate was

the definition of grant objectives and specific goals? How adequate was the planning process at the grant level, in terms of implementation plans with timelines, milestones and realistic and SMART output indicators? How adequate was the Performance Management and Evaluation Plan (PMP), including the Performance Indicator Reference Sheets (PIRS), as tools for adequate project management?

10. How efficient and effective was CLP internal monitoring system for the portfolio of agricultural sector grants and activities? How effective was the internal monitoring system at providing accurate and timely feedback on progress towards achievement of planned outputs, and at detecting issues affecting the achievement of grant objectives and specific targets?

11. Based on available data, what are the preliminary outcomes of CLP agriculture sector interventions? Assess the adequacy of CLP internal monitoring and evaluation system to provide information on the preliminary outcomes of agricultural sector interventions. Provide recommendations on the characteristics/capacity that project-level M&E systems should have to provide accurate and timely information for operational and strategic planning in future Agriculture sector programs.

12. Evaluators will first put together an accurate historical narrative of the award from the signing of the award up to the date of implementing this evaluation. This will include all challenges faced, stoppages or blockages of the work and reasons why, how problems were overcome, and what other steps were taken to correct or change the work flow. Also evaluators will summarize in the narrative expected program achievements, what factors contributed to or impeded their success, and overall progress vis-à-vis implementation along with preliminary outcomes achieved by the project to date. The evaluators will also include a detailed explanation of the reasons why the project may not have made progress towards achieving certain expected results, as relevant.

13. The evaluators should analyze the program design and strategic and operational approach vis-à-vis each objective to determine their effectiveness by comparing outputs to date against the work plan and the PMP, determine whether the PMP and work plan are effectively linked and whether the data they include is detailed enough to establish causal links to the IRs and targets by number, quarter, and year, with the level of disaggregation, including gender, specified in the corresponding PIRS. This analysis will help determine how successful the program has been at achieving its planned outputs. The evaluations should then analyze the extent to which the achievement of planned outputs has contributed towards the achievement of the planned outcomes.

14. Taking into account quality (timeliness, accuracy and relevance) of program reporting, evaluators will determine whether program reporting has met USAID standards. The evaluators should analyze the indicators of the PMP and determine the adequacy of the data collection process and data analysis process to enable an informed analysis of the contribution of CLP agriculture sector interventions to expected outcomes. This will include an analysis of the adequacy of baseline data collection for each output and outcome indictor, as well as an analysis of attribution; that is, the extent to which changes (the difference between baseline and end of project) in CLP agricultural sector outcome indicators may be attribute to the CLP agricultural program.

15. Related to the above paragraphs, the evaluators will analyze the project's M&E systems to assess if these are sufficient and appropriate to effectively document needed information to track and confirm project progress against anticipated output and outcome results.

Methodology

Evaluators are encouraged to use the following data collection and analysis methods: (i) a review of data collected thus far with respect to the program; (ii) interviews with participants at all levels of the program (implementers, grantees, sub-grantees beneficiaries, USAID, YMEP and the ROYG); interviews with other major stakeholders (ROYG officials, donors and nontraditional actors at the local community level); and focus groups using structured interview guides and questionnaires with representatives of a broad sample of beneficiaries of the CLP program.

A. Key Informant Interviews

Evaluators will conduct key informant interviews to examine the roles and program observations of CLP Implementer; Creative Associates Int. selects governorates, central ministry of Agriculture and Irrigation, local organizations, namely those that have received sub grants/direct assistance.

The USAID/Sanaa Mission suggests that during the assessment interviews the following question areas be explored:

1) How did the political turmoil and transition in Yemen impact (either positively or negatively) the implementation and effectiveness of CLP achievements to date?

2) How do security considerations impact implementation of the project?

3) What mitigation measures did CLP take to minimize security constraints during program implementation?

4) Does CLP use an integrated, participatory and inclusive approach to its interventions?

5) Has/Does CLP has worked closely with the ROYG to strengthen the overall efforts of the MAI?

6) Was CLP successful in reaching its target beneficiaries for agriculture interventions?

7) How effective was the project prioritization and activity implementation?

8) How aware the ROYG has been of USAID's CLP activities?

9) How CLP trainings and capacity-building events have positively impacted movement of ROYG policies to date?

10) How the project is perceived and valued by the stakeholders (i.e. ROYG officials, beneficiaries, civil society, and other donors)?

11) Since a component part of the program is focused on capacity building to improve delivery of extension services and training this assessment needs to focus on how effective intervention has been and what were the key factors in making it a success. How effective has CLP strengthening a relationship with privet sector.

12) How effective has CLP introducing new technology to farmers, what the impact of

introduction the new tech.

13) Citizen opinions of how the ROYG is doing in terms of service delivery and meeting the needs of vulnerable citizens; and

14) Whether the program incorporates an understanding of the national context and USAID's 2010-2012 strategy in addressing targeted grievances driving instability.

B. Focus Groups

Focus groups discussions using structured interview guides will be conducted in Sana'a, Aden and at least three other governorates to be selected by the evaluators in consultation with CLP and USAID. The purpose of the focus groups will be to determine how the project is perceived and valued by ROYG officials, communities, farmers, women and other stakeholders. In addition, the focus groups should be used to obtain information on the effectiveness of CLP interventions and on the performance of CLP, including how CLP trainings, interventions and capacity building events have positively impacted movement of ROYG policies to date, identifying how the activities were in alignment with Agriculture Strategy of Yemen, how the Ag activities were perceived and valued by the stakeholders (i.e. ROYG officials, beneficiaries, civil society, and other donors) and whether the program incorporates an understanding of the national context and USAID's 2010-2012 strategy in addressing targeted grievances driving instability.

C. Program Results and Impact

The evaluation will include a review of the effectiveness and efficiency of the CLP Agriculture activities to determine whether the various activities funded to date contribute significantly to achieving program goals and whether they are designed with relevant attention to the various social, political, and economic forces at play in Yemen. These analyses will help to determine if program activities have been sufficient to make a real impact, whether there any lessons learned from the period of the program that can be applied to the new Agriculture project of USAID.

The Evaluation Team

Team Leader: One senior-level evaluation methodologist with extensive experience designing and conducting evaluations in low income fragile states as well as experience in evaluating USAID Agriculture programs. The senior level evaluation methodologist will serve as team leader and be responsible for the document review, field work, interviews, analysis, the draft and final evaluation reports, and the debriefs in the field.

Sector Expert: A senior-level Agriculture or Economist specialist who can evaluate interventions targeting access to Agriculture, quality of Ag services, and raising awareness on Agriculture issues. The senior level sector expert will work closely with the team leader and in all areas of document review, field work, interviews, analysis, the draft and final evaluation reports, and the debriefs in the field.

Four local research assistants/evaluators. Preferably with Agriculture background.

Stakeholder Participation and Local Capacity

The evaluation will utilize local research assistants/evaluators who will conduct focus group discussions, interviews or other means of project evaluation with program interlocutors and beneficiaries.

Evaluation Timeline and Logistics

Team Leader: Total of approximately 60 days (based on 6 day work week) – 6 days for preparation, 30 days in field, 4 travel days, 15 days for preparation of draft report, 5 days for revisions and final report preparation after comments received from USAID.

Sector expert: approximately 60 days (based on 6 day work week) – 6 days for preparation, 30 days in field, 4 travel days, 15 days for draft report writing, 5 days for revisions and final report preparation after comments received from USAID.

YMEP is responsible for providing the required logistical support to undertake the evaluation. Prior to the launch of the evaluation, YMEP and the Team Leader will specify all the logistical needs for the evaluation.

Desk Review

Documents USAID will provide for desk review include:
CLP RFA

CLP Cooperative Agreement and modifications

CLP PMP

Yemen Mission PMP

CLP Agriculture work plans

CLP Quarterly Program reports

CLP /Agriculture Presentation

Other relevant CLP documents (success stories, articles, M&E procedures and protocols etc.).

Evaluation Deliverables

The contractor shall provide the following deliverables:

Develop an appropriate methodology for the evaluation including data collection tools.

Prepare a field and HQ work plan, including interview plan (both current and former CLP and USAID staff responsible for CLP).

Field work with data gathering and analysis

Write a draft evaluation report with findings, lessons learned, conclusions, and recommendations

Brief outline of methodological approach for evaluation before departure for Yemen and a detailed evaluation budget.

A proposed itinerary, schedule for interviews, and list of all logistical support needs for the field visit based on desk review of documents and grants database, interview lists, and initial conversation with implementing partner staff regarding CLP. This deliverable shall ideally be submitted to the YMEP COR and CLP AOR prior to departure to Yemen; however, it can be

adjusted within the first few days in on-ground in Yemen during the in-brief with USAID/Yemen.

Mid-field visit briefing to inform USAID of progress and any major issues encountered (date TBD with YMEP COR)

Debrief with USAID Yemen 4 working days prior to departure to allow for Mission feedback and any additional field work, if needed

Draft of the evaluation report submitted to YMEP COP and IBTCI HQ two working days prior to departure from Yemen

Draft of the evaluation report submitted to USAID Yemen, seven days following departure from Yemen

Final evaluation report in English, deliverable no later than two weeks after receipt of all comments from USAID on first draft.

Annex 2: Methodology and Instruments used

This annex contains the questions as per SOW and the planned source of data; the Farmers FG discussion guide; the MAI FG discussion guide, the Women farmers FG discussion guide; the Key Interviews questions, and the Farmers productivity questionnaire

Final Evaluation of the CLP Agriculture Program
Evaluation Questions, Data Collection Methodology and Reporting Format
June 16, 2014

Report Sections and Evaluation Questions	Data Collection Methodology	Reporting Format
1. Program Historical Narrative		
1.1 Evaluators will first put together an accurate historical narrative of the award from the signing of the award up to the date of implementing this evaluation. This will include all challenges faced, stoppages or blockages of the work and reasons why, how problems were overcome, and what other steps were taken to correct or change the work flow. Also evaluators will summarize in the narrative expected program achievements, what factors contributed to or impeded their success, and overall progress vis-à-vis implementation along with preliminary outcomes achieved by the project to date. The evaluators will also include a detailed explanation of the reasons why the project may not have made progress towards achieving certain expected results, as relevant.	• Document Review (CLP annual/quarterly/weekly reports and internal documents) • KI interviews with CLP staff	• Narrative text • Graph showing timelines with key events
2. Program Design and Strategic and Operational Approach and appropriateness/adequacy		
2.1 How adequate was the project design and logical framework? [Q1]	• Document Review (CLP contract docs and annual work plans; PMPs and PMEP) • KI interviews with CLP staff, and USAID	• Narrative text
2.2 Has CLP been successful in building upon, maintaining and/or strengthening successful components of MAI and NGOs programs that benefited from prior USAID funding? [Q2]	• Document Review (CLP contract docs and annual work plans; PMPs and PMEP) • KI interviews with CLP staff, MAI officials and USAID and development partners	• Narrative text
2.3 Were the main challenges already known to USAID and CLP when the project started, and if so, what did CLP do differently to modify its approach and address these emerging challenges? [Q1]	KI interviews with CLP staff, and USAID	• Narrative text

Report Sections and Evaluation Questions	Data Collection Methodology	Reporting Format
2.4 What changes did CLP introduce to its original design, approach and activities to respond to USAID's refocus? [Q1]	• Document Review (CLP contract docs and annual work plans; PMPs and PMEP) • KI interviews with CLP staff	• Narrative text
2.5 What are/were the main new challenges CLP faced while implementing the various agriculture approaches and interventions? [Q]	• KI interviews with CLP staff	• Narrative text • Reference to timeline with key events
2.6 What were some examples of successful integration between agriculture and other components of improved livelihood? [Q1]	• KI interviews with CLP staff	• Narrative text
2.7 How does CLP prepare for and apply sustainability methodology and approaches in the design of and while implementing its agricultural activities? [Q4]	• KI interviews with CLP staff • Mid-term evaluation of CLP • YMEP TPM Reports	• Narrative text
3. Planning, Monitoring, Data Quality and Reporting		
a) Planning		
3.1 How effective was CLP operational planning capacity for individual grants? How adequate was the definition of grant objectives and specific goals? How adequate was the planning process at the grant level, in terms of implementation plans with timelines, milestones and realistic and SMART output indicators? How adequate was the Performance Management and Evaluation Plan (PMP), including the Performance Indicator Reference Sheets (PIRS), as tools for adequate project management? [Q9]	• KI interviews with CLP staff • KI interviews with sub-grantees • Mid-term evaluation of CLP • Analysis of PMPs and PMEP including PIRS • KI interviews with MAI regarding level of participation and coordination with CLP	• Narrative text
b) Monitoring, Data Quality and Reporting		
3.2 The CLP project has reported to USAID/Yemen on the number of beneficiaries reached, how accurate are the data provided on numbers of direct and indirect beneficiaries? [Q7]	• KI interviews with CLP M&E staff • Review of Clearinghouse database • Review of DQA's conducted by YMEP	• Narrative text • Graph of number of direct beneficiaries
3.3 Due to the volatile and changing security status among other challenges in Yemen, CLP monitoring system relied on their agriculture field staff. How well has this monitoring system functioned and how effective has the flow of information been between the center and the field? How did CLP compensate for	• KI interviews with CLP M&E staff and Management • Analysis of CH to compared achieve to planned progress in terms of outputs,	• Narrative text

Report Sections and Evaluation Questions	Data Collection Methodology	Reporting Format
or address the known problem of lack of reliability of agricultural data and service statistics in order to report properly on agriculture activities and results, and how effective was this response? [Q6]	disbursements and timing	
3.4 How efficient and effective was CLP internal monitoring system for the portfolio of agricultural sector grants and activities? How effective was the internal monitoring system at providing accurate and timely feedback on progress towards achievement of planned outputs, and at detecting issues affecting the achievement of grant objectives and specific targets? [Q10]	• KI interviews with CLP M&E staff and Management • Analysis of CH to compared achieve to planned progress in terms of outputs, disbursements and timing	• Narrative text
3.5 Assess the adequacy of CLP internal monitoring and evaluation system to provide information on the preliminary outcomes of agricultural sector interventions. Provide recommendations on the characteristics/capacity that project-level M&E systems should have to provide accurate and timely information for operational and strategic planning in future Agriculture sector programs. [Q11]	• KI interviews with CLP M&E staff and Management Analysis of CH to compared achieve to planned progress in terms of outputs, disbursements and timing	• Narrative text
3.6 The evaluators should analyze the indicators of the PMP and determine the adequacy of the data collection process and data analysis process to enable an informed analysis of the contribution of CLP agriculture sector interventions to expected outcomes. This will include an analysis of the adequacy of baseline data collection for each output and outcome indictor, as well as an analysis of attribution; that is, the extent to which changes (the difference between baseline and end of project) in CLP agricultural sector outcome indicators may be attribute to the CLP agricultural program. [Q14]	• Analysis of PMPs and PMEP • Analysis of CH	• Narrative text
3.7 Related to the above questions, the evaluators will analyze the project's M&E systems to assess if these are sufficient and appropriate to effectively document needed information to track and confirm project progress against anticipated output and outcome results. [Q15]	• Analysis of CH • Analysis of CLP internal M&E system	• Narrative text
c) Reporting		

Report Sections and Evaluation Questions	Data Collection Methodology	Reporting Format
3.8 Taking into account quality (timeliness, accuracy and relevance) of program reporting, evaluators will determine whether program reporting has met USAID standards. [Q14]	• Review of USAID guidelines on reporting standards • Review of CLP reports (quarterly, weekly) • KI interviews with USAID	• Narrative text
4. Efficiency		
4.1 CLP started in 2010; the agriculture funding level was over $15.4 million for the life of project. To what extent does the size/number of outputs, deliverables and achievements reported by CLP reflect the resources utilized in relation to time and funds provided to the agriculture program? [Q2]	Analysis of CH data to generate efficiency ratios (e.g. achieved disbursement to planned disbursements; average cost per direct beneficiary)	• Narrative text
5. Effectiveness		
a) Outcomes		
5.1 Based on available data, what are the preliminary outcomes of CLP agriculture sector interventions? [Q11]	CLP documents (weekly, quarterly reports; CLP impact study) Farmer focus groups KI interviews with CLP	• Narrative text • Tables from CH showing planned and achieved outputs
5.2 Outcomes: How well has CLP approach and intervention to agriculture supported the project objective of Yemen's improving livelihoods of targeted communities? [Q1]	• CLP documents (weekly, quarterly reports; CLP impact study) • Farmer focus groups • KI interviews with CLP, MAI officials and USAID	• Narrative text
5.3 The evaluators should analyze the program design and strategic and operational approach vis-à-vis each objective to determine their effectiveness by comparing outputs to date against the work plan and the PMP, determine whether the PMP and work plan are effectively linked and whether the data they include is detailed enough to establish causal links to the IRs and targets by number, quarter, and year, with the level of disaggregation, including gender, specified in the corresponding PIRS. This analysis will help determine how successful the program has been at achieving its planned outputs. The evaluations should then analyze the extent to which the achievement of planned outputs has	• Analysis of CLP Annual Work Plans and other strategic planning documents (if available); • Analysis of PMPs and PMEP • Analysis of CH	• Narrative text • Tables from CH showing planned and achieved outputs

Report Sections and Evaluation Questions	Data Collection Methodology	Reporting Format
contributed towards the achievement of the planned outcomes. [Q13]		
5.4 Effectiveness of agriculture extension, farmers groups, women's groups, etc. [what other approaches?]	• Farmer focus groups • KI interviews with CLP, MAI officials and USAID	• Narrative text
5.5 Effectiveness of direct implementation versus sub-grants: The implementation mechanisms used by CLP include sub-grants and direct implementation. What are the advantages/disadvantages of each approach? And, which approach provides better outcomes/impact for the investment provided and is more suitable/recommended while implementing agricultural interventions in Yemen, and why? How effective were each in implementation and how timely were the interventions? With regard to CLP approach of using the grant mechanism, was CLP able to maintain proper control of the technical direction, maintain quality standards and achieve the planned results? Did the grant mechanism lead to increased community participation innovation and initiative? Did CLP make a comparison of how well it performed when implementing directly versus through grantees? Did CLP adequately assess the implementation capacity of grant implementers and did CLP provide adequate support to strengthen the implementation capacity of grant implementers? Was CLP experience and lessons learned with grants in other sectors (Health, Education) of any relevance and applicability to the agriculture sector? [Q5]	• Review of Activity reports • Review of CH database • KI interviews with CLP, MAI officials and sub-grantees • Farmer focus groups	• Narrative text • Tables from CH showing comparison of the following statistics for DI and sub-grants: planned and achieved outputs; planned to achieved implementation periods.
b) Sustainability		
5.6 How does CLP prepare for and apply sustainability methodology and approaches in the design of and while implementing its agricultural activities? [Q4]	• Review of CLP planning documents • KI interviews with CLP	• Narrative text

Report Sections and Evaluation Questions	Data Collection Methodology	Reporting Format
5.7 How effectively does CLP monitor the sustainability of its interventions and take follow-up action to resolve issues? [Q4]	• Review of CLP planning documents • KI interviews with CLP, MAI officials and sub-grantees • Review of YMEP TPM reports	• Narrative text • Graph showing sustainability index for various CLP interventions
5.8 How did CLP hand over grants and their related activities when they ended to the beneficiaries/communities to the appropriate entities? [Q4]	• Review of CLP planning documents • KI interviews with CLP, MAI officials and sub-grantees	• Narrative text
6. Conclusions, Lessons Learned, Recommendations		
6.1 Interventions that USAID has supported through the years include agriculture extension, farmers groups, women's groups, etc. Based on the evaluation of the efficiency and effectiveness of these interventions, how important is support of these types of interventions in future USAID programmatic funding in Yemen to improve agriculture production? [Q3]	To be based on findings from Sections 1 to 5	• Narrative text
6.2 What recommendations does the assessment team have for USAID/Yemen to consider when implementing the new agriculture project? Based on evidence and results, what activities have been deemed successful/ promising, what approaches and strategies does CLP find more promising or successful and recommend for future programming?	To be based on findings from Sections 1 to 5	• Narrative text

Final Evaluation of the CLP Agriculture Program
Focus Group Discussion Guides – July 19, 2014 Version

Farmer Focus Groups

Purpose: To understand how the farmers who have participate in or benefitted from CLP agricultural interventions perceive those interventions; to determine the impact that those interventions have had on them so far; to determine the rate of adoption of new practices and technologies and the factors that contributed to their adoption or non-adoption of the new practices and technologies; understanding whether and how agricultural services.

A. Effectiveness of CLP Interventions on crop production (to be applied for horticulture and coffee producing beneficiaries of CLP interventions):

1. How did CLP interventions in **crops** affect the capability of farmers to improve production or to grow more food for the family?

1.1 Adoption of new agricultural practices or technologies for **crops**:

Prompt 1: Have you yourself adopted and put in practice on your farm the new agricultural practices or technologies that were promoted by CLP?

Probe 1: Which new practices or technologies promoted by CLP have you adopted on your farm?

Drill 1: ***Instruction for interviewer:*** *Indicate the number of percentage of focus group participants have adopted: a)nursery or greenhouse installed on farm; b) use of nursery seedlings; c) in-field production practices/good agricultural practices; d) irrigation technology; e) pest management; f) Post harvest techniques; g) marketing practices;*

	Nursery or greenhouse Installed on farm	Use of nursery seedlings	In-field Production practices/GAP	Irrigation Technology	Pest management	Post Harvest techniques	Marketing practices
Number of Adopters							
% of Adopters							

Probe 2: On which crops have you applied the new practices or technologies?
Probe 3: Why have you chosen to adopt those technologies on your farm?
Instruction for interviewer: *Determine what percentage of focus group participants have adopted the new agricultural practices or technologies promoted by CLP. Where applicable, determine the percentage of participants who have adopted greenhouse technology, irrigation technology, and other technology and practices.*

Prompt 2: What impact did the adoption of new agricultural practices or technologies promoted by CLP have on the level of crop production?

Probe 1: After adopting the new agricultural practices or technologies, what has been the percentage change in the volume of crops produced, compared with before you adopted those practices or technologies?

Drill 1: *If some farmers who adopted the technology or practice do not report a change in production, ask additional questions to find out why they think that the production did not increase. Do they think that the technology/practice was implemented properly?; were all of the necessary conditions present and available, or were some missing?. .*

Instruction to interviewer: *Ask the focus group to provide information on individual crops*

Probe 2: If there has been an increase in production as a result of adopting new agricultural practice or technologies, what percentage of the increased production has been for household consumption? What percentage of the increased production has been sold?
Instruction to interviewer: *Ask the focus group to provide information on individual crops*

Prompt 3: What impact did the adoption of new agricultural practices or technologies promoted by CLP have on the quality of production?

Probe 1: After adopting the new agricultural practices or technologies, what has been the change, if any, in the **quality** of the production? In what way has the quality changed for specific crops? ***Instruction to interviewer:*** *Ask the participants to describe in qualitative terms how the quality has changed (for example, taste, texture, size, color, resistance to pests/disease).*

Probe 2: What has been the percentage change, if any, in the use of pesticides?

Prompt 4: What impact did the adoption of new agricultural practices or technologies promoted by CLP have on the cost of production?

Probe 1: After adopting the new agricultural practices or technologies, what has been the percentage change in the total cost of production on your farm?

Prompt 5: What impact did the adoption of new agricultural practices or technologies promoted by CLP have on the volume of water used for irrigation?

Probe 1: After adopting the new agricultural practices or technologies, what has been the percentage change in the amount of water used for irrigation on your farm during the year?

Prompt 6: What impact did the adoption of new agricultural practices or technologies promoted by CLP have on family income?

Probe 1: After adopting the new agricultural practices or technologies, what has been the percentage change in the income of the family from agricultural activities on the farm as a result of the application of the new practices or technologies?

Prompt 7: (Sustainability) Based on your experience in applying the new agricultural practices and technology in horticulture, do you plan to continue to use it on your farm in the new crop year? Why or why not?

Instruction to interviewer: *Determine the percentage of adopters who plan to continue using new practices and technologies in the new crop year.*

Prompt 8: Are there any agricultural practices or technologies that were promoted by CLP that you have chosen not to adopt on your farm?

Probe 1: Which ones?

Probe 2: What are the factors that made you decide not to adopt?

Prompt 9: Do you plan on adopting any of the new agricultural practices or technologies in future?

Probe 1: Which ones?

Probe 2: What conditions will need to be present for you to adopt those practices or technologies?

Prompt 10: Have you observed that other farmers in your district have adopted the new agricultural practices or technologies promoted by CLP?

Probe 1: What new practices or technologies for horticulture promoted by CLP have you observed other farmers adopting?

Probe 2: From your observation, what has been the experience of the farmers who have adopted the new agricultural practices or technologies for horticulture promoted by CLP?

Prompt 11 (for tomato producers): What impact did CLP interventions to manage tuta absoluta have on your farm?

Probe 1: What new practices promoted by CLP have you adopted on your farm to manage tuta absoluta?

Probe 2: Before CLP what was the percentage of your tomato crop was damaged by tuta absoluta during the year?

Probe 3: What percentage of your crops have been damaged by tuta absoluta this year (after CLP)?

Prompt 12: Overall, what was the significance of CLP interventions to your family or business?
Probe 1: How important was the experience of working with CLP to you personally, to your household and your community? ***Instruction to interviewer:*** *Collect descriptive comments and statements rather quantitative information.*

Drill 1: importance to you individually:
Drill 2: Importance to your household:
Drill 3: Importance to your community.

Prompt 13: As a result of this intervention from CLP has your perception of MAI services changed? ***Instruction to interviewer:*** *Collect descriptive comments and statements rather quantitative information*
Probe 1: How has your perception of MAI services changed compared to before the CLP intervention?
Prompt 14: Compared to before participating in the CLP intervention, how confident are you of your ability to sustain your household in future? ***Instruction to interviewer:*** *Collect descriptive comments and statements rather quantitative information*

B. Effectiveness of CLP Honey Interventions:

1. Did CLP activities in **honey** improve the capability of farmers to improve production?

1.1 Adoption of new agricultural practices or technologies for **honey**:

Prompt 1: Have you yourself adopted the new agricultural practices or technologies for **honey** that were promoted by CLP?
Instruction to interviewer: *Determine the percentage of bee keepers in the focus group who adopted the new agricultural practices or technologies on their own farms.*
Probe 1: What new practices or technologies promoted by CLP have you adopted?
Probe 2: Why have you chosen to adopt those technologies?

1.2 Impact of new agricultural practices or technologies for **honey**:

Prompt 1: Did new agricultural practices or technologies that you adopted in **honey** result in increased production? What was the percentage increase in production compared to before CLP? ***Instruction to interviewer:*** *Determine the percentage change in production compared to before CLP.*
Drill 1: *If some farmers who adopted the technology or practice do not report a change in production, ask additional questions to find out why they think that the production did not increase. Do they think that the technology/practice was implemented properly?; were all of the necessary conditions present and available, or were some missing?.*

Prompt 2: Did new agricultural practices or technologies that you adopted in **honey** result in reduced cost? What was the percentage increase in production compared to before CLP?
Instruction to interviewer: *Determine the percentage change in cost of production compared to before CLP.*

Prompt 3: Did new agricultural practices or technologies that you adopted in **honey** result in increased income for your family? What was the percentage increase in revenue compared to before CLP? ***Instruction to interviewer:*** *Determine the percentage change in revenue compared to before CLP.*

Prompt 4: (Sustainability) Based on your experience in applying the new practices and technology in honey, do you plan to continue to use it in future? ***Instruction to interviewer:***

Determine the number and percentage of FG participants who plan to continue to apply new practices and technologies.

Probe 1: Why do you plan to continue to apply the new practices and technologies
Probe 2: Why do you not plan to continue to apply the new practices and technologies?

Prompt 5: Are there any technologies or practices for honey that were promoted by CLP that you have chosen not to adopt?

Probe 1: Which technologies of practices for honey have you chosen not to adopt?
Probe 2: What are the factors that made you decide not to adopt?

Prompt 6: Do you plan on adopting any of the new agricultural practices or technologies in future?

Probe 1: Which agricultural practices or technologies do you plan to adopt in future?
Probe 2: What conditions would need to be present for you to adopt those technologies in future?

Prompt 7: Have you observed that other farmers in your district have adopted the new agricultural practices or technologies for **honey** promoted by CLP?

Probe 1: What new practices or technologies for honey promoted by CLP have you observed other farmers adopting?
Probe 2: From your observation, what has been the experience of the farmers who have adopted the new agricultural practices or technologies for honey promoted by CLP?

Prompt 8: Overall, what was the significance of CLP interventions to your family or business?
Probe 1: How important was the experience of working with CLP to you personally, to your household and your community?
Drill 1: importance to you individually:
Drill 2: Importance to your household:
Drill 3: Importance to your community.

C. Effectiveness of Household Vegetable Garden Interventions:

3.1 Experience before CLP and sustainability

Prompt 1 Before CLP intervention, did you already have a household vegetable garden?
Instruction to interviewer: *Determine the number of focus group participants who already had a vegetable garden before CLP.*

Prompt 2 Is the vegetable garden that you established with CLP support still in use?
Instruction to interviewer: *Determine the number of focus group participants who established a household vegetable garden with CLP support and who still have a functioning vegetable garden.*

Prompt 3 (For individuals who established a vegetable garden but who no longer have one) Why do you no longer have a vegetable garden?
~~**Probe 1:** What was your experience with the vegetable garden?~~
Probe 1: What happened to the vegetable garden? Why did you decide to not continue planting the vegetable garden?

3.2 Did CLP activities in **household vegetables** improve the capability of farm families to improve production of vegetables for household consumption? What was the impact of new agricultural practices or technologies on the level of production of **household vegetables**:

Prompt 1: Which crops are you growing in your vegetable gardens now using CLP technologies and practices?

Prompt 2: What is the size of your vegetable garden?

Prompt 3: What is the volume of production from your vegetable garden? ***Instruction to interviewer:*** *Ask the focus group participants to indicate the amount that is produced by type of crop.*

Prompt 3: What percentage of the production from your vegetable garden is for family consumption? What percentage is for sale? ***Instruction to interviewer****: Determine the range of percentages for home consumption and for sale.*

3.3 Significance of working with CLP

Prompt 1: Overall, what was the significance of CLP interventions to your family or business?

Probe 1: How important was the experience of working with CLP to you personally, to your household and your community?

Drill 1: importance to you individually:

Drill 2: Importance to your household:

Drill 3: Importance to your community.

D. Agricultural Services:

4. [**For Lahj only**] In <u>your community</u>, has there been any noticeable change in agricultural services over the past two years (since 2012)?

Prompt 1: Have agricultural services in your community stayed the same, or have they become worse or have they improved compared to two years ago (2012)?

Probe 1: Was there a change in the: a) types of agricultural services that are available; b) the quality of agricultural services; c) the ease-of-access (time, travel) to obtain agricultural services.

Drill 1: What types of agricultural services are available now that were not available before CLP?

Drill 2: In what way has the quality of agricultural services changed? Please give examples.

Drill 3: Describe how access to agricultural services has been easier to obtain compared to before CLP.

E. Recommendations

Prompt 1. What are your suggestion for future projects to improve farmer's capacity and enhance agricultural development in your community?

Probe 1: What are your expectations, needs, for future support in agriculture projects in your community?

Prompt 2. Is there anything that CLP could have done differently to implement the agriculture interventions in your community that would have resulted in a greater impact?

Probe 1: What could CLP have done differently to obtain a greater impact?

Focus Group Discussion Guide for MAI Officials, Agriculture Extension Agents, Farmer Associations and Women's Groups

Prompt 1: CLP stands for the Community Livelihoods Project. The goal of CLP was to improve livelihoods in targeted communities. How effective were CLP interventions in achieving that goal?

Probe 1: How successful was CLP at achieving its goals of improving livelihoods?

Probe 2: Were there CLP interventions that successfully improved livelihoods in targeted communities in your governorate/district?

Drill 1: What elements of CLP have been effective?

Drill 2: What made them effective?

Probe 3: Were there CLP interventions that were not effective in improving livelihoods in targeted communities in your governorate/district?

Drill 1: What were some examples?

Drill 2: Why were they not effective? What was missing to make them effective?

Prompt 2: To what extent has CLP contributed to building the capacity of extension agents and government officials to support farmers?

Probe 1: Did the extension workers at your office participate in CLP field activities?

Probe 2: What is the status of agriculture extension services in the governorates in which CLP strengthened extension services.

Prompt 3: CLP implemented activities targeting the following sectors: Coffee, horticulture, honey. CLP interventions also supported the following activities : establishing home gardens; livestock vaccination campaigns against PPR and Sheep Pox; campaign against tuta absoluta; and on-farm food processing. Within each sector and for each activity, CLP introduced new technologies and practices. **What has been the impact of these CLP interventions on agriculture productivity and livelihoods of beneficiary farmers in your governorates?**

Probe 1: What has been the impact on productivity of beneficiary farmers?

Probe 2: How appropriate and suitable to farmers' conditions were the following technologies promoted by CLP: greenhouse, solar pumps and drip irrigation?

Probe 3: In each of these sectors, to what extent did farmers in your governorate or district adopt the technologies and practices promoted by CLP:

Drill 1: What were the factors that contributed to or impeded the adoption by farmers on their own farms of CLP-promoted technologies and practices?

Drill 2: How accessible financially are these technologies to farmers? Do you think all farmers have the financial capacity to adopt these technologies?

Drill 3: Was there anything missing from CLP intervention that would have resulted in a higher rate of adoption?

Drill 4: CLP value chain activities in horticulture, coffee and honey began with 18 months remaining in the project. What impact, if any, did this timing have on the adoption rate?

Probe 4: What has been the impact on the quality of produce?

Probe 5: What has been the impact household income?

Probe 6: What has been the impact on access to food?

Probe 7: What has been the impact on rural employment opportunities? For men, for women, for youth?

Probe 8: What has been the impact on the ability of CLP beneficiaries to sustain their families?

Prompt 5: How did CLP hand over grants and their related activities when they ended to the beneficiaries and communities to the appropriate entities?

Prompt 6. (Efficiency/Coordination with other Development Partners): How well did CLP interventions take into consideration the interventions of other Development Agencies and the current agricultural strategy of MAI?

Probe 1: In addition to CLP were there other agricultural projects being implemented in your governorate?

Probe 2: How well did CLP interventions complement the interventions that were being implemented by other agricultural projects?

Probe 3: How well did CLP interventions address the priorities established in the current agricultural strategy of MAI?

Prompt 7: Do you know of any international or national projects that have adopted or are planning to adopt any of CLP-promoted technologies or practices?

Probe 1: Which international or national projects operating in your governorate have adopted or are planning to adopt which technologies or practices?

Probe 2: (for Directors): In your governorate-level annual work plans, are you including or are you planning to include any of the CLP-promoted technologies or practices?

Prompt 8. (Gender) What has been the impact of CLP interventions on gender roles in the targeted communities?

Probe 1: How responsive has CLP been to the needs of both women and men? Explain.

Drill 1: How adequately did CLP consider gender roles in planning their activities?

Drill 2: Could gender roles have been more effectively taken into account? If so, how? How would that have resulted in a better impact on the livelihoods of beneficiaries?

Probe 2: How have CLP interventions affected the work load of men, women and children at the farm level?

Drill 1: Have there been any consequences, either positive or negative, on men, women or children on the change in work load resulting from CLP interventions?

Prompt 9: (Sustainability) How sustainable are the results of CLP interventions?

Probe 1: Which CLP results are most likely to be sustainable (e.g., production capacity, market access, policy, extension capacity) and why?

Probe 2: Are the outcomes related to adoption of better practices sustainable, example: are the participants likely to continue after CLP program ends?

Probe 3: Which outcomes are likely to be sustainable, and why?

Probe 4: Which outcomes are likely to be unsustainable, and why?

Probe 5: What could have been done to increase the sustainability of CLP outcomes?

Prompt 10: In general, how satisfied are you with the CLP Project and why?

Prompt 11: What are the lessons that we might learn from CLP project?

Prompt 12: What are your recommendations for future agricultural projects to increase the resilience of rural communities?

Probe 1: What should the priorities of future projects be?

Probe 2: What design or operational elements should be included in future agricultural projects to help ensure effectiveness at achieving the goal of increasing resilience of rural communities?

Annex 2 (continued)

Farmers' questionnaire to be administered by interviewers to farmers selected from among the focus groups participants

Date: _____ **Name of Interviewer**:_____

1. Governorate: _____ 2. District: _____
3. Name of interviewee: _____
4. How many family members live on the farm (including yourself)?
   4.1 Total _____ 4.2 Women _____ 4.3 Men _____ 4.4 Girls _____ 4.5 Boys _____
5. What is total size of your farm (include unit of measure)? _____
6. How much of your farm do you own and how much do you rent (include unit of measure)?
   6.1 Area owned _____ 6.2 Area rented _____
7. Which of the following agricultural activities did you benefit from support provided by CLP?
   7.1 Horticulture ☐ 7.2 Coffee ☐ 7.3 Honey ☐ 7.4Household vegetable garden ☐ 7.5 Sheep vaccination ☐
8. **On your farm**, on which **annual crops** have you applied any of the new technologies or agricultural practices that were promoted by CLP?

	1	2	3	4	5	6	7	8	9	10
	Annual Crop Name	AFTER CLP (Most recent)						BEFORE CLP		
		Area Planted	Unit of Measure	Volume of Production	Volume Unit	CLP Technology/ Practice Applied	Irrigation Tech	Area Planted before CLP	Volume of production before CLP	Irrigation Type
8.1										
8.2										
8.3										
8.4										
8.5										

CLP Technology/Practice

1. Land preparation
2. Improved seedlings
3. Improved irrigation
4. Cultivation practices
5. Water harvest
6. Greenhouse
7. Harvesting practices
8. Pheromone traps

Irrigation Technology

1. Solar pump
2. Driptech
3. Gravity (GR)

9. Number of Harvests Per Year

	Annual Crop Name	Before CLP	With CLP
9.1			
9.2			
9.3			

10.. **On your farm**, on which **perennial crops** are you applying any of the new technologies or agricultural practices that were promoted by CLP?

	1	2	3	4	5	6	7	8	9	10
	Perennial Crop Name	AFTER CLP (Most recent)						BEFORE CLP		
		Area Planted	Unit of Measure	Volume of Production	Volume Unit	CLP Technology/ Practice Applied	Irrigation Tech	Area Planted before CLP	Volume of production before CLP	Irrigation Type
10.1										
10.2										
10.3										
10.4										
10.5										

Irrigation Technology
1. Solar pump
2. Driptech
3. Gravity (GR)

21. Compared to before CLP what has been the percentage change, plus or minus, in the volume of water that you use on your farm?

22. Compared to before CLP what has been the percentage change, plus or minus, in the amount of money you spend to grow crops?

23. Compared to before CLP what has been the percentage change, plus or minus, in the amount of labor used on your farm?

14. Honey Production

1	2	3	4	5
BEFORE CLP			NOW	
Number of hives before CLP	Volume of production before CLP	Volume Unit	Number of hives with CLP training	Volume of production with CLP

15. Sheep

1	2	3	4
BEFORE CLP		NOW	
Number of Sheep before CLP	Number of Sheep with PPR or Sheep Pox	Current Number of Sheep	Number of Sheep with PPR or Sheep Pox

16. Vegetable gardens

	1	2		3	4	5	6
		BEFORE CLP				NOW	
	Crop Name	Area Planted	Area Unit of Measure	Volume of production	Volume Unit of Measure	Area Planted	Volume of production
16.1							
16.2							
16.3							
16.4							
16.5							

17. Overall, what has been the impact to date of CLP interventions on improving the livelihood of your household and your community?

Instruction to interviewer: Ask the respondent to reply based on the following scale:

	Very Positive	Somewhat positive	Neither positive or negative (neutral)	Somewhat negative	Very Negative
On your household:					
On your community.					

18. Compared to before the CLP interventions how do you perceive the quality of MAI services in your community?

Greatly improved	Somewhat improved	Same as before	Somewhat worse	Much worse

19. Compared to before participating in the CLP intervention, how confident are you of your ability to sustain your household in future?

Instruction to interviewer: Ask the respondent to reply based on the following scale:

Much more confident than before	Somewhat more confident than before	Same level of confidence as before	Somewhat less confident than before	Much less confident than before

Annex 3. Criteria for Evaluation of the Adequacy of CLP Agriculture Program Grants

Criteria for Evaluation of the Adequacy of CLP Agriculture Program Grants

Score	Adequacy of Objectives and Goals	Adequacy of Timelines and Milestones	Adequacy of Output Indicators
High = 3	• Grant objectives are clearly defined. • Grant objectives are adequately detailed. • Grant goals are clearly defined. • Grant goals are adequately detailed.	• Timelines provided for all principal activities. • Timelines provided for the principal tasks required to complete principal activities • At least one milestone identified for each principal activity. • Timelines for each activity and task are realistic.	• All output indicators are explicitly defined for each activity. • All output indicators are consistent with the output indicators defined in the PMEP or PMP; • All output indicators are SMART (Specific, Measureable, Achievable, Relevant and Time-bound).
Medium = 2	One of the conditions for "High" not fulfilled	One of the conditions for "High" not fulfilled	The conditions for "High" not fulfilled for at least one indicator or indicators are not explicitly defined.
Low = 1	More than one of the conditions for "High" not fulfilled.	More than one of the conditions for "High" not fulfilled.	The conditions for "High" not fulfilled for two or more indicators.

Adequacy Score of a Sample of CLP Agriculture Program Grants

Grant Number and Name	Adequacy of Objectives and Goals	Adequacy of Timelines and Milestones	Adequacy of Output Indicators	Score	Observations
AGSAN002: Piloting rooftop rainwater harvesting for school gardens in Sana'a	High 3	Medium 2	Medium 2	Medium 7	Timeline does not include school selection, needs assessment, installation of gardens. No milestones defined. No activity and indicator defined for testing of the systems.
CLHJ012: Building trust between farmers and MAI in Lahj Phase 1	High 3	Low 1	High 3	Medium 7	Timeline not available
CLHJ017: Household vegetable and poultry production	High 3	Low 1	High 3	Medium 7	Timing of delivery of live inputs (chickens) coincided with Ramadan and hot weather, resulting in high mortality rate of chickens. No milestones.
CLHJ022: Improving delivery of Public Service at MAI in Lahj	High 3	Low 2	High 3	High 8	Timeline not available, but the grant was a simple delivery of office furniture and equipment, so timeline not critical for planning. No milestones.
CYEM044: Household vegetable production for food security and income generation	High 3	Low 1	High 3	Medium 7	Timing of delivery of live inputs (chickens) coincided with Ramadan and hot weather, resulting in high mortality rate of chickens. Timeline does not include "formation of producer groups" (mentioned as an activity in the grant agreement. No milestones.
CYEM051: Capacity building for bee keeping in Sana'a	High 3	Low 1	Medium 2	Medium 6	Timeline not available. Indicator of "beekeeper association strengthened not well defined"
DIAGSAN002: Demonstration of Solar Energy for agriculture use	Medium 2	Low 1	Medium 2	Low 5	Number of indirect beneficiaries improbable due to the demonstration nature of the project. Timeline doesn't mention demonstration of the project to students. Tendering timeline

Grant Number and Name	Adequacy of Objectives and Goals	Adequacy of Timelines and Milestones	Adequacy of Output Indicators	Score	Observations
					unrealistic. Construction timeline unrealistic (starts same week as preparation of tender documents). Indicators don't include the 12,000 direct beneficiaries mentioned in the grant.
DIAGSAN003: Demonstration of water management for coffee production	High 2	Low 1	Medium 2	Low 5	Proposal document indicates 3,600 direct beneficiaries, while M&E document indicates 600. Timeline not available,.
DIAGYEM008: Demonstration of improved coffee and post-harvest production	High 3	High 3	3 High	9 High	
DIAGYEM009: Capacity building for high value horticulture production	Low 1	Low 1	Medium 2	Low 5	Objective incorrectly defined. Goal is inadequately defined (not specific to the activity). Target number of trainees ambiguous. Timelines not provided for the principal tasks required to complete principal activities. Timelines for establishment of nurseries and training not consistent. No description of how ownership of greenhouses will be carried out.
DIAGYEM010 Capacity building for honey quality standards	Medium 2	Medium 2	Medium 2	Medium 6	Grant proposal and timeline mention "support for quality control laboratory" but there is no information on what this support entails. Grant proposal refers to supporting honey associations, without specifying the number of associations that will be supported.
AVERAGE SCORE	**Medium-high**	**Medium-low**	**Medium-High**	**Medium 6.5**	

Grant Number and Name	Adequacy of Objectives and Goals	Adequacy of Timelines and Milestones	Adequacy of Output Indicators	Score	Observations
	2.5	1.5	2.5		

Annex 4. List of CLP agriculture program grants

Grant Number	Target Sector	Grant Status	Grant Title	CSO Sub-grantee	Funding Source	Grant Type	Total Disbursements (USD)	Budget	Grant Start Date	End Date
AGAMR002	Agriculture	Closed	Home gardening for food security and income generation in Thula		ES/2010/2011 Ag	Cash	99,624	99,957	1/1/2012	6/30/2012
AGAMR003	Agriculture	Closed	Building trust between farmers and MAI in Thula		ES/2010/2011 Ag	In-Kind	82,374	99,320	1/1/2012	12/31/2012
AGAMR004	Agriculture	Closed	Silver Water Filter Project in Thulla		ES/2010/2011 Ag	In-Kind	98,086	99,851	1/1/2012	6/30/2012
AGAMR005	Agriculture	Closed	Rehabilitation of Thula water supply		ES/2009/2010 Ag	Direct Implementation	72,147	72,319	5/6/2012	11/30/2012
AGSAN002	Agriculture	Closed	Rooftop rainwater harvesting for School Gardening in Sanaâ€™a	SFD	ES/2010/2011 Ag	Cash	86,191	87,022	4/25/2012	11/24/2012
CABY004	Agriculture	Closed	Building trust between farmers and MAI in Abyan Phase 1		ES/2009/2010 Ag	In-Kind	28,630	99,277	6/15/2011	6/30/2012
CADN015	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2009/2010 Ag	In-Kind	98,180	99,655	9/1/2011	6/30/2012
CAMR001	Agriculture	Closed	Building trust between farmers and the MIA line department in Amran		ES/2009/2010 Ag	In-Kind	36,539	34,832	9/15/2010	5/15/2011
CAMR002	Agriculture	Closed	Improving Delivery of Public Service at MAI in Amran		ES/2009/2010 Ag	In-Kind	8,214	8,214	10/25/2010	2/10/2011
CAMR011	Agriculture	Closed	Building trust between farmers and MIA Phase 2		ES/2009/2010 Ag	In-Kind	79,658	92,350	5/16/2011	6/30/2012
CAMR018	Agriculture	Closed	Silver Water Filter Project		ES/2009/2010 Ag	In-Kind	99,433	99,851	7/1/2011	12/31/2011
CAMR019	Agriculture	Closed	Household vegetable production for food security and income generation		ES-GFSI/2011/2012 Ag	In-Kind	76,535	99,998	9/1/2011	6/30/2012
CAMR020	Agriculture	Closed	Capacity building for beekeeping improvement in Amran		DV-GFSI/2010/2011 Ag	In-Kind	62,016	99,854	12/26/2011	5/26/2013
CDHL003	Agriculture	Closed	Building trust between farmers and MAI in Al-Dhale Phase 1		ES/2010/2011 Ag	In-Kind	62,952	99,277	6/15/2011	6/30/2012
CDHL004	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2009/2010 Ag	In-Kind	60,739	99,995	9/1/2011	6/30/2012
CDHL005	Agriculture	Closed	Capacity building for beekeeping improvement in Al-Dhale: Phase 1		ES-GFSI/2012/2013 Ag	In-Kind	63,729	99,854	1/7/2012	6/7/2013
CDHL008	Agriculture	Closed	Improving Delivery of Public Service at MAI in Al-Dhale		DV-GFSI/2010/2011 Ag	In-Kind	22,298	35,405	10/1/2011	12/31/2011
CJWF002	Agriculture	Closed	Building trust between farmers and the MAI line department in al-Jawf		ES/2009/2010 Ag	In-Kind	33,505	61,207	9/15/2010	5/15/2011
CJWF003	Agriculture	Closed	Improving the Delivery of Public Services at MAI in Al Jawf		ES/2009/2010 Ag	In-Kind	8,214	12,560	10/10/2010	2/10/2011
CJWF017	Agriculture	Closed	Building trust between farmers and MIA Phase 2		ES/2010/2011 Ag	In-Kind	64,624	92,350	5/16/2011	6/30/2012
CJWF021	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2009/2010 Ag	In-Kind	68,460	99,998	9/1/2011	6/30/2012

CJWF022	Agriculture	Closed	Capacity building for beekeeping improvement in Al-Jaff: Phase 1		ES-GFSI/2012/2013 Ag	In-Kind	59,823	99,853	12/10/2011	5/9/2013
CLHJ012	Agriculture	Closed	Building trust between farmers and MAI in Lahj Phase 1	MAI Lahj	ES/2010/2011 Ag	In-Kind	64,935	99,277	6/15/2012	6/30/2012
CLHJ017	Agriculture	Closed	Household vegetable production for food security and income generation	MAI Lahj	ES/2009/2010 Ag	In-Kind	59,226	99,995	9/1/2011	6/30/2012
CLHJ018	Agriculture	Closed	Capacity building for beekeeping improvement in Lhaj	MAI Lahj	ES-GFSI/2012/2013 Ag	In-Kind	62,977	99,854	12/10/2011	5/18/2013
CLHJ022	Agriculture	Closed	Improving Delivery of Public Service at MAI in Lehj		DV-GFSI/2010/2011 Ag	In-Kind	22,950	36,705	10/1/2011	12/31/2011
CMRB002	Agriculture	Closed	Building trust between farmers and the MAI line department in Marib		DV/2007/2008 Cof	In-Kind	38,538	61,807	9/15/2010	5/15/2011
CMRB018	Agriculture	Closed	Improving Delivery of Public Services at MAI in Marib		ES/2009/2010 Ag	In-Kind	8,214	12,560	10/25/2010	2/10/2011
CMRB031	Agriculture	Closed	Building trust between farmers and MIA Phase 2		ES/2009/2010 Ag	In-Kind	59,891	92,350	5/16/2011	6/30/2012
CMRB043	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2009/2010 Ag	In-Kind	58,825	99,998	9/1/2011	6/30/2012
CMRB044	Agriculture	Closed	Capacity building for beekeeping improvement in Marib: Phase 1		ES-GFSI/2012/2013 Ag	In-Kind	59,874	99,854	1/7/2012	6/7/2013
CMRB045	Agriculture	Closed	Cleaning Dam Canals using cash for work		ES/2010/2011 Ag	In-Kind	102,364	99,516	8/1/2011	6/30/2012
CSAD001	Agriculture	Closed	Building trust between the farmers and the MAI line department in Sa'adah		ES/2009/2010 Ag	In-Kind	50,541	71,581	9/15/2010	5/15/2011
CSAD002	Agriculture	Closed	Improving the delivery of public services at MAI in Saada		ES/2009/2010 Ag	In-Kind	8,214	12,560	10/25/2010	2/10/2011
CSBW001	Agriculture	Closed	Building trust between farmers and MAI line department in Shabwa		ES/2009/2010 Ag	In-Kind	38,853	68,201	9/15/2010	5/15/2011
CSBW002	Agriculture	Closed	Improving Delivery of Public Service at MAI in Shabwa		ES/2009/2010 Ag	In-Kind	8,321	12,560	10/25/2010	2/10/2011
CSBW009	Agriculture	Closed	Building trust between farmers and MIA Phase 2		ES/2009/2010 Ag	In-Kind	66,014	92,350	5/16/2011	6/30/2012
CSBW025	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2009/2010 Ag	In-Kind	62,289	99,998	9/1/2011	6/30/2012
CSBW026	Agriculture	Closed	Capacity building for beekeeping improvement in Shabwa: Phase 1		ES/2009/2010 Ag	In-Kind	64,950	99,853	1/7/2012	6/7/2013
CYEM018	Agriculture	Closed	Capacity building to the prevent spread of PPR and Sheep Pox disease		ES/2010/2011 Ag	In-Kind	100,246	99,304	4/30/2011	6/30/2012
CYEM019	Agriculture	Closed	Capacity building to prevent the spread of PPR and Sheep Pox disease.		ES/2010/2011 Ag	In-Kind	85,080	99,304	5/15/2011	6/30/2012
CYEM043	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2010/2011 Ag	Cash	99,868	99,956	9/1/2011	10/20/2012
CYEM044	Agriculture	Closed	Household vegetable production for food security and income generation	Al Thuraya for Agriculture Consulting	ES/2010/2011 Ag	Cash	93,940	99,655	9/1/2011	6/30/2012
CYEM045	Agriculture	Closed	Household vegetable production for food security and income generation	Yemeni Association for Susstainable Agriculture Development (YASAD)	ES/2010/2011 Ag	Cash	99,035	99,655	9/1/2011	6/30/2012
CYEM046	Agriculture	Closed	Household vegetable production for food security and income generation	Yemeni Association for	ES/2010/2011 Ag	Cash	99,938	99,655	9/1/2011	6/30/2012

				Susstainable Agriculture Development (YASAD)						
CYEM050	Agriculture	Closed	Capacity building for beekeeping improvement in Hadramout		ES/2009/2010 Ag	In-Kind	73,005	99,854	12/10/2011	5/9/2013
CYEM051	Agriculture	Closed	Capacity building for beekeeping improvement in Sana'a		ES-GFSI/2011/2012 Ag	In-Kind	60,367	99,853	12/13/2011	5/13/2013
CYEM062	Agriculture	Closed	Household vegetable production for food security and income generation		ES/2010/2011 Ag	Cash	102,000	99,956	9/1/2011	6/30/2012
DIAGAMR001	Agriculture	Closed	Building trust between farmers and MAI in Amran		ES-GFSI/2011/2012 Ag	Direct Implementation	21,126	26,737	6/30/2012	12/31/2012
DIAGDHL001	Agriculture	Closed	Building trust between farmers and MAI in Al-Dhale		ES-GFSI/2011/2012 Ag	Direct Implementation	11,445	28,162	6/30/2012	12/31/2012
DIAGJWF001	Agriculture	Closed	Building trust between farmers and MAI in Al-Jawf		ES-GFSI/2011/2012 Ag	Direct Implementation	19,300	26,737	6/30/2012	12/31/2012
DIAGLHJ001	Agriculture	Closed	Building trust between farmers and MAI in Lahj		ES-GFSI/2011/2012 Ag	Direct Implementation	14,886	28,162	6/30/2012	12/31/2012
DIAGMRB001	Agriculture	Closed	Cleaning Marib Dam Canals for labor intensive work in Marib		ES-GFSI/2011/2012 Ag	Direct Implementation	100,905	95,896	6/11/2012	9/11/2012

Annex 5. Focus Group Discussions report by activity

1. Participants: Number of farmers included in the evaluation FG discussions by CLP intervention

	CLP activity number	CLP activity title	Men	Women	Total
1	DIAGYEM007	Campaign against tomato leaf minor Tuta Absoluta	44	4	48
2	DIAGYEM004	Capacity building for high value horticultural production	54	41	95
3	DIAGYEM009	Capacity building for high value horticultural production 2	6	8	14
4	DIAGYEM010	Capacity building for honey quality standards	17	22	39
5	CYEM051	Capacity building for beekeeping improvement in Al-Jawf : Phase 1	0	0	0
6	DIAGYEM002	Demonstration of improved coffee production practices	77	57	134
7	DIAGYEM003	Demonstration of water management for coffee production	68	45	113
8	DIAGYEM008	Demonstration of improved coffee production and postharvest handling	55	46	101
9	CYEM018	Capacity building to the prevent spread of PPR and Sheep Pox disease	14	10	24
10	DIAGSAN004	Demonstration of efficient irrigation system	40	22	62
11	DIAGSAN002	Demonstration of solar technology for agricultural use Sanaa University	6	15	21
12	DIAGSAN005	Demonstration of solar-powered greenhouse	28	17	45
13	CYEM045	Household vegetable production for food security and income generation	18	0	18
14	--	Household chickens production for food security and income generation	0	11	11
15	CLHJ018	Capacity building for beekeeping improvement in Lahj: Phase 1	1	0	1
16	DIAGLHJ001	Building trust between farmers and MAI in Lahj	0	4	4
17	CLHJ017	Household vegetable production for food security and income generation	25		25
	Totals		453	302	755

Focus group discussions results

I. CLP Coffee interventions

Coffee farmers from the 5 governorates participated in FG discussions

1. Percentage who have adopted technology and practices:

Taiz: 90%

Lahj: 62-80%

Raymah: 90%
Sanaa: 100%

Ibb: 78%

1.1. Which practices or technologies have been adopted?

Production practices; post-harvest techniques. Drought problem and water shortage have limited applying some of these technologies and practices; improved irrigation, pest management, marketing; improved seedlings from nursery; pruning of coffee trees; Fertilization and pest control - Trimming coffee trees, - Post-harvest dealing with crops, - The spaces between coffee trees; coffee cultivation, treatment coffee crop post-harvest, coffee marketing, management and operation of Nurseries in addition to how to choose a good seed and the process of sowing and the process of pest control and how to harvest, and the application of new techniques and methods in the process of drying and sorting coffee for coffee with high quality; coffee nursery operated by solar energy, improved coffee trees, preparing land, using organic fertilizers and recommended distance between the tree, storing coffee practices.

Nursery or greenhouse installed on farm: nursery in Sanaa

Use of greenhouse seedlings: yes for all except in Lahj

In-field Production practices: Yes for all groups

Irrigation technology:

Yes but we couldn't rationalize irrigation water despite of the large need to it because CLP didn't provide us with samples of modern irrigation systems such as drip irrigation system ".; yes in Lahj but no drip irrigation kits given out; in Sanaa 2 out of 15 did use drip irrigation, in Ibb 2 of 9.

Pest management: Ibb, Sanaa and Lahj

Post-harvest techniques: All

Marketing practices: yes for a few but not applicable to many because they had no crops yet.

On which crops were practices/technologies applied? All coffee

Why did you choose to adopt the technologies/practices on your farm?

Empirical observation of impact on trees; convinced of higher production lower cost; saw the difference between new methods and traditional ones; found what we were doing was wrong; because recommended by CLP; Got support for doing it; like saving water and reducing costs.

1.2. Impact on volume of crop production

Good, but results limited due to insufficient water for irrigation/ 70% of participants indicated that CLP activities ,which represented by three extension training courses conducted for 50 farmers, gave farmers knowledge and experience that enable them improving the production capability of coffee, About 60% of participants agreed that adopting these new technologies and practices in their farms was because of their conviction that it will have a positive results, 80% of beneficiaries introduced the new agricultural practices and technologies in coffee production according to the possibilities attained except drip irrigation system because there is not irrigation network (Lahj);

30% increase in production, from 5 to 7 kgs per tree (Sanaa)

Ibb, Raymah and Taiz: no production yet as trees are still young

Percentage change in volume of crops:

Lahj: Six of participants indicated that the adoption of new agricultural practices and technologies on the level of coffee production have good impact. However, it should be noted here that the results would have been better if there were enough water for irrigation / drought problem have prevented our expectation, so the production in the last four years was low (about 5.5 Kg per coffee tree) four years ago the volume was 9 Kgs per tree (Lahj).

1.3. Impact on quality of produce

Change in quality: Ibb: I applied a pruning technique, I have observed the trees became stronger and healthier. The trees have a lot of flowers. This is an indicator to have a better harvest than before." I adopted the pruning technique last season; the productivity of the coffee was increased from 40 Qadah (about 160Kg) to 60 Qadah (about 240 Kg)." the quality of coffee has several aspects such as the volume of beans getting bigger with strong smell." Furthermore, the farmer added that "the adoption of post harvesting practice such as the proper time for harvesting, grading and drying practices contributed massively to the quality of coffee in terms of the taste, smell and color of the coffee. These new characteristics of the coffee give me advantage to sell the product in better price

Percentage change in pesticide use

1.4. Impact on cost of production

Percentage change in cost of production: yes drip irrigation reduces costs; Lahj: total production cost increased by 10 – 20% due to the increase of cost of irrigation water and pest control ; expenditures; 50% less in Sanaa.

1.5. Impact on water use

The lack of a permanent source of irrigation where 70% of the farmers are dependent on irrigation of rain (rain cultivation; Greenhouse: Has not been adopted, and the participants agreed to their inability to purchase and installation of greenhouses where the cost is high- about 350-400 thousand riyals;

Adopting of drip irrigation system led to decrease the production cost in terms of volume of water, labor, fuel and time." The farmer explained that before adopting the system I was hired 3 persons to irrigate the field every one irrigation time. Their cost was about 4500 YR per day. However, after adopting the system, I need only one person who cost about 1500 YR., In addition, I used to spend 5

hours to irrigate the same area, but now we need only 2 hours to irrigate the coffee." The farmer reported that the drip irrigation system saves more water, for example before the adoption we used to consume about 125 m3 for one time. However, after the adoption, we just need to use 25 m3 every irrigation time."

Shortage of water anyway so using less water by not by choice; water was less but because of drought. CLP didn't provide coffee farmers in Yahur with drip irrigation network;

1.6. Impact on family income

Change in family income: Ibb: "after adopting coffee nursery, supported by CLP, I have sold more than 1500 trees. I earn about 200,000 YR". And "I am still having about 3500 trees to be sold in the future."

1.7. Percentage who will continue using new practice/technologies

Yes, we will continue the adoption of practice and technologies that promoted by CLP such as pruning trees, pest management, using fertilizers, etc." However, "we cannot adopt the drip irrigation system or pumping water by solar technique, these technologies cost high amount of money which is not available" We are small farmers not a rich farmer." Farmers added.

In Lahj 90% of participants said that they plan to continue; in Taiz all plan to expand areas with drip irrigation

Any practices/technologies you've chosen not to adopt: in Sanaa, water irrigation because 70% of farmers depend on rain.

<u>Reason for not adopting</u>:

In Sanaa, 70% of farmers depend on rain; Ibb: we cannot adopt the drip irrigation system or solar pump technologies due to our financial limitation, shortage of underground water; Ibb: 77% said "the factors that influence the non-adoption of drip irrigation system and solar pump technologies are: the sacristy of a permanent source of water, the high prices of greenhouses, drip irrigation system and other inputs as primary barriers to adoption."; Sanaa: cost and lack of water sources.

<u>Will you adopt practices/technologies in future?</u>

Raymah: 90% of the beneficiaries said, we are ready to adopt any new techniques or methods in the future with the help of the CLP; Ibb: we plan to adopt agricultural practices and inputs that relatively cheap, not complex and available in the town; 90% in Lahj.

<u>Which technologies will you adopt?</u>

Lahj: 90% = drip irrigation; Taiz: Drip irrigation for old coffee fields, replace old coffee trees with new seedlings if production in current new fields shows an increase; using manure instead of white fertilizer; Raymah: Habilitation and rehabilitation the agricultural terraces farmland neglected with the help of the project if it is possible that, in addition to the establishment of tanks to harvest rain water; Sanaa: drip irrigation; Ibb: we are planning to adopt the practices which do not cost a lot of money, such as pruning, post harvesting techniques- Drip irrigation system, in-field production practices, preparing

and using organic fertilizers, pest management practices and post harvest techniques

What conditions are needed in order to adopt?

Lahj: Support, guidance, monitoring and follow-up; "In order to adopt those practices and technologies, we need to provide us with necessary support and guidance as well as to continuously monitoring and following-up the implementation of drip irrigation system "; Ibb: 77% specifically mentioned that they need financial assistance which enables them to adopt drip irrigation system; Raymah and Sanaa: water availability

Have other farmers adopted?
Ibb: 44% said "they heard that many coffee farmers adopted improved seedling coffee, pruning technique, and pest management practices". Lahj, Sanaa and Taiz: yes

Which practices/technologies have other farmers adopted?
Production practices, Trimming coffee trees, Post-harvest dealing with coffee crop, Identifying spaces between coffee trees; Trimming coffee trees, Post-harvest dealing with coffee crop, Identifying spaces between coffee trees; We observed the adoption of agricultural practices; post-harvest technology and pruning of coffee with some farmers in the neighborhood; farmers who adopted the new agricultural practices such as pruning, organic fertilizer and the farmers who bought new coffee trees that brought it from the nursery are happy to adopt those practices.

2. Change in perception of MAI Extension Services

In Ibb: All FGD participants agreed that "before CLP, the extension services workers have never visited our fields. Now, the situation becomes better, we have seen extension workers came from the Ibb office with CLP staff to our village. They try to help us by providing advisory services related to coffee crop and other horticulture crops. However, we are not sure if they will continue to visit us after the CLP project ended
In Raymah: 100% said there is no activity services done by the Ministry of Agriculture and Irrigation.

Sanaa: Participants agreed that they benefited from the interventions of the CLP more than the services of the ministry of agriculture. Some participants stated that; they have already attended the training sessions, but they were unable to determine whether those courses funded by the CLP or from the ministry. According to two of the respondents "we have already received training on coffee by the ministry in 2013, one of the participants received special training in olives and one farmer was trained in the field of veterinary medicine.

3. Recommended activities for future projects:

Lahj:

- Building dams and underground cisterns to store water and the extending of irrigation networks to the fields of the coffee farmers.
- Supporting the farmers with the modern irrigation units (drip irrigation network).
- Helping the farmers to deepen the wells.
- Expediting the operation of the nursery provided by the project in order to respond to the requirements of the farmers from seedlings at appropriate prices.
- Support the farmers with four water trucks (as a temporary solution).
- Holding training courses for all coffee farmers as well as intensifying the agricultural extension

- Providing irrigation water for the coffee cultivation and improve the productive capacity of farmers.
- Increasing coffee production and improve its quality.
- Encouraging farmers to continue to grow coffee instead of qat.
- Supporting the prices of coffee by the Sta
- One of participants indicated that that it was better that CLP gives priority of its activities in irrigation water/ (A) Five of participants indicated that it was better that CLP focuses its activities on rationalization of water consumption through providing farmers with drip irrigation networks as well as instructing farmers on how to use them

Raymah:

- Habilitation and rehabilitation of the agricultural terraces.
- Improve the capacity of farmers and providing material support such as white loans (interest-free loans)
- The introduction of improved seeds adapted to the natural conditions of the area.
- To assist in the process of finding a technique to sort the quality of the coffee product
- Building a large collection tanks for use in irrigation coffee crop
- Continuous communication between farmers and funders to meet training courses and provide advice and guidance and exchange of results between the two sides

Sanaa:

- It will be more effective and profitable if such investments like greenhouses and vegetable nurseries are not given to one or two rich farming families but provided to farmer's associations, if available in the area, or assist small and poor farmers to organize themselves and establish CBOs, farmers associations or any type of community organization. There are some risks, providing vegetable nurseries to one farming family because such schemes require marketing and distribution experience to dispose millions of seedlings produced within very short period of time which needs a lot of investment to own transportation means, arrange distribution agents in several areas and very efficient management; a farming family can't deal with such business and will certainly fail after one or two years, it is recommended that vegetable nurseries are given to an efficient community organization and much better to a private businessman

Taiz:

- Demand for women empowerment activities that are more related to women (livestock, handicrafts, food processing, housekeeping, beekeeping, management)

Below is a detailed table on the coffee demonstration sites CLP installed.

CLP Coffee demo-Sites

Activity		Sana'a	Taiz	IBB	Dhamar	Raymah	Lahej
Coffee demo pilot	Site name	Bait Al-Qanis N 15˚ 04'10.39" E 43˚ 41'41.61"	WadiTalooq N 13˚ 08' 31.3" E 43˚ 11'57.8"	WadiRfood/ Al-Makhader N 14˚ 2'09.23 E 44˚ 7'10.03	Madinat Al-Sharq/ Almitrab N 14˚6' 38.99 E 43˚4' 57.10	Al-Kadaha N 14˚ 41'32.35" E 43˚ 35'51.01"	Di-nakhib, Al-Hanakah N 13˚ 51'17.33" E 45˚ 17'54.32"
	Field size	8.00 ha	1.00 ha	0.53 ha	0.36 ha	2.42 ha	0.40 ha
	# of plants	2700	2700	2700	2700	2700	2700
	variety	Odeyni	Hamadi/Dawairi	Dawairi	Odeyni/Dawairi	Odeyni/Dawairi	Odeyni
	date planted	15/04/2013	10/11/2013	23/06/2013	5/5/2013	10/4/2013	28/05/2013
	distance between Plants and rows	2.5 * 2.5 m	2.5 * 2 m	2.5 * 2.5 m	2.5 * 2.5 m	2 * 2 m	2.5 * 2.5 m
Water Resources	GW or WH	Water harvesting (Dam)	Water harvesting Tank	Groundwater	Groundwater + Water harvesting Tank	Water harvesting Tank	Groundwater
Water Tank in the coffee Demo-Pilot	Capacity (m3)	dam capacity 70000 m3	150 m3	25 m3	100 m3 Water harvesting tank	100 m3	50 m3
Solar Pump	Complete solar power unit	by Gravity	by Gravity	Yes	Yes	by Gravity	Yes
Area equipped with Drip Irrigation system	field area (ha)	8.00 ha	1.00 ha	0.53 ha	0.86 ha	2.42 ha (1.70 ha for Existed field)	1.00 ha (0.60 ha for Existed field)
Total amount of water saved	M^3	34200	4275	2265	3676	9576	4200
Number of Beneficiaries	Direct:	200	150	150	120	250	90
	Indirect:	1200	800	600	500	700	300

CLP Male Coffee Nursery-Sites

Description	Sana'a	IBB	Dhamar	Raymah	Lahej
Location	Mosana/Manakha N 15˚6'31.31" E 43˚ 41'37.19"	WadiRfood/ Al-Makhader N 14˚2' 09.23 E 44˚ 7'10.03	Madinat Al-Sharq/ Almitrab N 14˚ 6'38.99 E 43˚ 4'57.10	Al-Saqi/Al-Ja'farea N 14˚ 33'38.86" E 43˚ 34'57.14"	Di-nakhib, Al-Hanakah N 13˚ 51'17.33" E 45˚ 17'54.32"
capacity (seedlings)	12000	24000	11000	12000	10000
Area	200 m^2	450 m^2	184.8 m^2	200 m^2	150 m^2
Water Tank	Rehabilitation for the existing Water tank (30) m^3 capacity and protection works for the Nursery	25 m^3 water tank constructed	Construction of 50 m3 tank + 100 m3 Water harvesting tank	3m^3 Plastic tank	3m^3 Plastic tank
Solar Pump	NO	Yes	Yes	NO	NO
Nurseries Accessories and necessary equipment	Yes	Yes	Yes	Yes	Yes
Number of Beneficiaries	Direct: 25	Direct: 35	Direct: 30	Direct: 20	Direct: 25
	Indirect: 200	Indirect: 400	Indirect: 300	Indirect: 250	Indirect: 200

CLP FemaleCoffee Nurseries -Sites

Activity	Sana'a	Taiz	IBB	Dhamar	Raymah	Lahej
Location	BaniMatar district – Garif	WadiTalooq	Al-Oudain district – Wadi Annah	Anis district – BaniFadhe-Korabh	Al-Jabeen district – Al-Gadis	Yaher district -
capacity (seedlings)	11000	12000	11000	11000	8000	8200
Area (m2)	189 m^2	200 m^2	189 m^2	189 m^2	120 m^2	125 m^2
Water Tank	Plastic Tank capacity 5m^3	Existing water tank capacity 20 m3	Plastic Tank capacity 5m^3	Plastic Tank capacity 5m^3	Plastic Tank capacity 5m^3	Plastic Tank capacity 5m^3
Nurseries Accessories and necessary equipment	Yes	Yes	Yes	Yes	Yes	Yes
Number of Beneficiaries	Direct: 30	Direct: 45	Direct: 30	Direct: 20	Direct: 20	Direct: 15
	Indirect: 150	Indirect: 280	Indirect: 300	Indirect: 200	Indirect: 150	Indirect: 120

II. Horticulture

1. Percentage who have adopted technology and practices

Raymah: Nearly 80% of farmers agreed that they have adopted practices and new technologies introduced by the project to improve the living community, while others (20%) emphasized that they did not adopt because of capital investment required to do so.

Ibb: 80 % adoption

Sanaa: all use the greenhouse in Saawan

Taiz: In addition to the greenhouses for producing vegetables and seedlings; CLP have provided training programs in the fields of vegetables and seedlings production inside greenhouses, using and maintaining of drip irrigation network, land preparation and production techniques and practices, post-harvest technology and biological protection of crops. The main vegetable crops produced in the area are Tomato, Cucumber, Chili, Okra, Potato and squash.

The total cultivable area owned and/or sharecropped by our sample was 11,134.5 Kasabah and total area cultivated with different vegetable crops was 8,134.5 Kasabah with total vegetable production of 14,801 baskets which is about 296 tons as described below:

Crop	Area Cultivated/Kasabah	Production	
		Baskets	Kg
Tomato	1,491.5	4,865	97,300
Cucumber	245	115	2,300
Chili	2,260	1,458	29,160
Okra	148	318	6,360
Potato	3,535	4,665	93,300
Squash	455	3,380	67,600
TOTAL	3,886	14,801	296,020

Which practices or technologies have been adopted?

Taiz: 75% adopted the full package including greenhouses (rich farmers). Others adopted rest of the package: Farm management using nursery seedlings, water efficiency, rational use of pesticides and fertilizer, reducing postharvest losses and regulating marketing operations

One of the greenhouse owners produced tomato seedlings has produced 170,000 seedlings that have been distributed to the farming families in the area which means that sources for certified seedlings required by farmers are available in the nearby village; they don't need to travel to another areas or establish private individual nurseries that are very expensive and seedlings may not of high quality.

Raymah: planting varieties of cucumbers and tomatoes in greenhouses and modern irrigation systems such as drip irrigation, farming management , such as good agricultural practices, and increase the efficiency of water use, fertilizers, pesticides, and reduce post-harvest losses and organizing marketing operation

Another farmer has a greenhouse to produce vegetables, he has achieved very high production last season; a plot of 13.5 cultivated Kasabah about 337.5 square meters have produced two tons of

tomato fruits which means more than 80 tons per (ha) or eight times higher than open field production, though production conditions were not at an optimum level because insects have entered into the greenhouse and affected the quality of production

This level of production, vegetables and seedlings, has attracted many farmers in the area to cooperate and come together to share investment required for purchasing and installing greenhouses.

Ibb: (Jiblah) Field production practices, local nursery seedlings, coffee seedling production technique, installed seedling nursery, greenhouse, adopted new varieties of cucumbers and tomato

Sanaa: Most farmers of FGD said that they are using the greenhouse, drip irrigation, agricultural practices, improved seeds and pesticides

Production practices Taiz: 100%; Sanaa: 100%; Ibb: 60%

Pest management: Taiz: 100%; Sanaa: 100%; Ibb: 20%

Improved irrigation: Taiz: 100%; Sanaa: 100%; Ibb: 20%

Post-harvest techniques: Taiz: 100%; Sanaa: 60%; Ibb: 20%

Marketing practices: Taiz: 100%; Sanaa: 60%; Ibb: 10%

On which crops were practices/technologies applied?
Sanaa: drip irrigation on Grapes, Peaches, and Potatoes. They also used the green House, improved seeds for tomatoes and cucumbers

Taiz: vegetables, fruit

Raymah: cucumbers tomatoes

Ibb: horticulture

2. Impact on volume of crop production

Raymah: All the attendees(100%) emphasized that through the use of modern methods and techniques led to a marked increase in the amount of production of cucumber, tomatoes and a reduction in production costs, in addition to the use of techniques and methods of modern irrigation has led to high efficiency in water use. percentage of change in the volume of crops produced , the response by everyone (100%) is that for cucumber 300 %, for tomato is more than 150% compared to what is growing in the open land

Ibb: production of tomato and potato was noticeably increased from 20kg to 30kg (2 Kasabah=128m2) and from 200kg to 250 kg (4 Kasabah = 256m2), respectively, due to the adoption of selection of better potato seeds, improved seedling tomato, organic fertilizer, and pest management practices. the production of tomato was increased from 50kg before applying agriculture practices of CLP project to 85 Kg after applied CLP' practices; production of potato was increased from 200kg to 350 kg from the same area (5 Kasabah = 320m2) that was cultivated after CLP interventions

About 90% of the participants have confirmed that CLP interventions enabled farmers to increase

level of production considerably; they have stated that production level of vegetables on open fields increased by 20-30% but in the greenhouses eight to ten times. Farmers have given some figures, which are presented in the table above. The technologies and production practices introduced by CLP that are used by farmers in the area: land preparation, cultivation practices, greenhouses technology, post-harvest technology, packing and storing of vegetables products, marketing practices, biological protection, water pumping with solar pumps and drip irrigation technology

Sanaa: The crop production increased by more than 100% in cucumbers, the previous production was 1 ½ kg per square meter, but the new production is about 16 kg.; using drip irrigation is found to increase production by about 50%.
Farmer 6: use of drip irrigation produces a longer season and increased number of harvests.
Farmer 4: production increase in tomatoes up to about 30%.

Percentage of increased production used for household consumption: 10-20%

Percentage of increased production sold to market: 90%

3. Impact on quality of produce
Raymah: difference in the quality of the crop through the form of the largest product size and taste and taste better. (90%) of the beneficiaries confirmed significant impact in reducing, time, labor, water and impact on the quality of the production.

Ibb: the quality of improved cucumber was noticeable, it has very soft skin and very testy. Regarding the quality of tomato, it looks very attractive with nice color, it has a thicker skin that enables it to survive and bulk transport.

Sanaa: In the grapes, increased the rigidity of the product, the less disease, but there is no difference in taste; peaches size increased; Products improved in color, became shiny and joyful and increased resistance to diseases; increased production in the Tomatoes and potato, and improved color

4. Percentage change in pesticide use
Raymah: less than 5% of previous quantities

Ibb: reduced by 50 to 100% in some cases

Sanaa: For one farmer the sprays decreased to only twice during the 4 months, while previously spraying was every 3-4 weeks, for another the spraying decreased by 20%.

5. Impact on cost of production
Raymah: reduce the total cost of 2 to 3 times

Ibb: in one case the cost of production was increased by about 20 % due to adopting of seedling, marketing practices such as using plastic box for packaging the strawberry, hiring one labor to clean, grade and package the product which I did not use before.

Others: less labor and cost for irrigation in one case

Sanaa: unanimity among the FGD on the low cost of production; it decreased about 30-40% after adopting the new agricultural practices or technologies

6. Impact on water use
Taiz: 30-50% reduction
Raymah: 90% yes it reduced water use (20%) but there is also a shortage of water

Ibb: majority of farmers (9 out 10) 90% did not adopt the drip irrigation system; we used to consume about 75 m3 for one time. However, after the adoption, we just need to use 25 m3 for three times (30% reduction or is it 90%)

Sanaa: case 1: water intake decreased by 30-40%, mulching saved 60%, 1 case: savings on irrigation of fruit by about 40%., 1 case: saved irrigation water by 30% in vegetables

7. Impact on family income
Percentage change in family income
Taiz: yes cucumber doubled, tomato 10 times
Raymah: from 10,000 YR income rose to 300,000 and could be 500,000 if not for some errors made in production

Ibb: 2 of 10 gave details: Due to the adoption of agricultural practices, the potato yield was increased from 200kg to 350 kg. This led to increase in family income from 20,000 YR to 35,000 YR; farm income increased by 30 to 40%." , the rest (80%) said that "they did not keep any farm record. And they do not know how much they spent, and how much they earn.
Sanaa: 30 to 40% increase

8. Percentage who will continue using new practice/technologies
100% in Taiz, Sanaa and Raymah and 70% in Ibb

Any practices/technologies you've chosen not to adopt
Taiz: green houses, plowing with tractors

Ibb: 2 of 10: none of the technologies; 1 of 10 horticulture practices.

Sanaa: Solar energy

Raymah: none

9. Reason for not adopting
Taiz: No permanent source of water; Deep plowing causes water to go deeper where it is reached by plant roots

Ibb: the factors that influence the non-adoption of greenhouse technology and solar pump were shortage of financial resources, the high prices and the complexity of maintenance. These factors are regarded as primary barriers to adoption from the farmers' perspectives; limitation of time, the project is relatively new; don't have a permanent source of water to irrigate the horticulture crops; financial ability to adopt; most important factor that influences the non-adoption of the drip irrigation system is the non-availability of the water itself

Sanaa: Solar energy, unsuccessful due to the depth of the wells which starts from 400 – 500m, in addition to its high cost

10. Will you adopt practices/technologies in future?

Ibb: 70% of farmers (seven farmers out total ten) said "they are willing to continue the adoption of practice and technologies promoted by CLP

Which technologies will you adopt
Taiz: greenhouses (if can get soft loans)
Raymah: costs of greenhouses decreased from 30-40% as a result of using local cooperative to make them

Ibb: Seedling tomato, in field production practices, preparing and using organic fertilizers. One plans to install another greenhouse to plant strawberry. "Based on my experience with the cucumber greenhouse, I have gained good profit" farmer said.

What conditions are needed in order to adopt?
Taiz: soft loans

Raymah: established (8) eight greenhouses, for eight (8) people and Seven (7) people use improved seeds for planting potatoes

Ibb: I would like to adopt all package of agriculture technologies and practices, however, the shortage of underground water handicapped me to adopt

Sanaa: consensus of all beneficiaries present a need for support, the provision of soft loans and long-term loans. Everyone was 100% willing to borrow

Have other farmers adopted? Which practices/technologies have other farmers adopted?

Taiz: rich farmers adopted green houses, others:tunnels for tomatoes, sedlings, cultivation practices, irrigation, post-harvest & marketing; use new brand of tomato for greenhouses and not the same as open field tomatoes.

Sanaa: greenhouses ; 9 greenhouses in El-Khrba village

Experience of other farmers
Taiz: majority are happy, few upset due to price drop from increased production

Sanaa: farmers will continue adopting because they found the revenues and profits more than previously

11. Perception of MAI Extension Services
Ibb: Jibal and Almakhader agreed that "before CLP, the extension services workers have never visited our fields. Now, the situation becomes better, we have seen extension workers came from the Ibb office with CLP staff to our village. They try to help us by providing advisory services related to coffee crop and other horticulture crops. However, we are not sure if they will continue to visit us after the CLP project ended."

Sanaa: 75% of the FGD farmers confirmed that their confidence has been increased as a result of capacity building, and new technology introduced that supported them in maintaining the family standard of living in the future. Nevertheless; they are complaining from the Government policy in raising prices of fuels recently that made them disappointed as farmers and needy consumers for the

diesel fuel

12. Tuta Absoluta

Taiz: Germination of tomato seeds sown in March 2014 at the nursery was very low so expected income was not achieved.

Sanaa: 50-60 % destruction of tomatoes by TA before CLP and 10% this year

13. Recommendations for future projects

Future project should introduce agricultural technologies at low cost to the farmer and to ensure that innovations meet local needs. In addition, the farmers need sustainable and effective extension services system that takes care about them

Develop a clear extension program for agriculture activities that were implemented.; Identify the real needs of target farmers; Involve and ensure community engagement in activities; Cover more agricultural activities such as honey production; Conduct more training sessions regarding plant protection techniques; Creating and forming farmers' groups and initiatives to work with them.; Introducing appropriate technologies that fit the farmer's needs and financial ability; Having a professional and well trained agricultural engineer; Enhancing farmers' cooperative associations at the local level; Involving the beekeeping interventions in the coming programs; Give more attention to poor resource farmers and helping them with financial support that enable them to adopt technologies

Sanaa:

- Water savings technology such as water harvest and drip irrigation;
- Support establishment of greenhouse to be owned by farmer's associations;
- Promote the establishment of vegetable nurseries,
- Establishing of water reservoirs to harvest rain water
- More attention for livestock production,
- Establish small dams and reservoirs to store rainwater for winter season,
- Include especial programs for women

Taiz:

- CLP has dealt with rural women as crop producers only but ignored many development activities that would empower rural women and improve their living conditions.
- Farmers did complain that only rich farmers are targeted by CLP investments such as greenhouses with the relevant equipment and vegetable nurseries, while small and poor farmers are deprived from such assistance
- Some important interventions benefiting larger communities were not considered by CLP programs like construction of small dames to store rainwater to be used in winter season.
- Greenhouses and vegetable nurseries are sometimes established without permanent water source; they do relay on water transported by trucks, which is not a reliable irrigation source.
- Training on farm management was not included in CLP training programs; it is very important to teach farmers how to keep farm records, how to calculate income expenditures etc.

Lahj:

- Building more household vegetable gardens and establishing a typical garden.
- Providing the necessary support for the production of improved seeds.
- Providing beekeepers with modern beehives as well as support them with machines to sort honey.

- Holding more training courses in the field of household vegetable production, beekeeping, livestock production and food industries.
- Supporting egg production to meet the needs of families.
- Activating the provision of the required agricultural services to insure obtaining them in appropriate type and time

From CLP: Horticulture site details

CLP Horticultural Demo sites

Location/ Sites	**Sana'a Gov.**	**Sana'a University**	**Sa'awan Ag. Association**	**Taiz**	**IBB**	**Dhamar**	**Raymah**
	Hamdan/ Wadi Luluah N 15°22'58.10" E 44°04'29.06"	Faculty of Agriculture N15°22'01.51" E 44°10'54.08"	**Sa'awan Ag. Association** N 15°22'56.18" E 44°14'40.86"	Al-Kalyebah N13°27'31.67" E 43°58'43.66"	Shaban N 13°53'54.64" E 44°10'17.20"	Ma'abar N 14°44'49.82" E 44°18'36.82"	Rimah N 14°40'10.30" E 43°39'13.00"
Water Resource	Groundwater from Well	Groundwater from Well	Groundwater from Well + water harvesting tank	Groundwater from Well	Ground water from well	Ground Water from well	Rain full + water harvesting tank
Water Tank capacity (m3)	50 m3	25m3	50 m3	25 m3	25 m3	25 m3	Rehabilitation of the existing water tank
water harvesting tank capacity (m3)	-	1000 m3	150 m3	-	-	-	200 m3
Area equipped by Drip-Tech Irrigation System (ha)	3	0	0	0.27	0.41	0.55	0.35
Area equipped by Drip irrigation(G.R) System) (ha)	2.5	0.25	0.75	0	0	0	0
Total Area equipped with Modern irrigation system (ha)	5.5	0.25	0.75	0.27	0.41	0.55	0.35
Total amount of the water saved over the equipped areas through the project (m3 per season)	21200	1371	3442	2030	1690	2720	1636
Greenhouses with full accessories	1	1	1	1	1	1	1
Type and size	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Type and size	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2
Solar power to	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Location/ Sites	Sana'a Gov.	Sana'a University	Sa'awan Ag. Association	Taiz	IBB	Dhamar	Raymah
	Hamdan/ Wadi Luluah N 15°22'58.10" E 44°04'29.06"	Faculty of Agriculture N15°22'01.51" E 44°10'54.08"	**Sa'awan Ag. Association** N 15°22'56.18" E 44°14'40.86"	Al-Kalyebah N13°27'31.67" E 43°58'43.66"	Shaban N 13°53'54.64" E 44°10'17.20"	Ma'abar N 14°44'49.82" E 44°18'36.82"	Rimah N 14°40'10.30" E 43°39'13.00"
operate the Pump, fans and lights							
Name of the association//Beneficiaries	Luluah Water User Association	Faculty of Agriculture	Sa'awan Agr. Association	Mr. Abdu Ali Suwaidi	Mr. Faris Abdullah Ali	Gahran Water User Association	Mr. Abdu Kassem
Crop cultivated in the Greenhouse	Cucumber	Cucumber + Strawberry	Cucumber	Tomatoes	Cucumber + Tomatoes	Cucumber + Tomatoes	Cucumber + Tomatoes
Number of Beneficiaries	Direct: 35 Indirect: 600	Direct:15 Indirect: 500	Direct: 45 Indirect: 600	Direct: 12 Indirect: 200	Direct: 8 Indirect:250	Direct: 12 Indirect:250	Direct: 15 Indirect:450

CLP Horticulture Nurseries sites

Location/ Sites	Sana'a Gov.	Taiz	IBB	Dhamar	Raymah
Women Nurseries	1	1	1	1	1
Location :	Bait Al-Shatibi-Sanhan District	Al-Hayat Women Association – Al-	Rebat Al-Qala'ah –	Rusabah District	Juairah - Al-Salafiah District

		Ma'afer District	Yareem District		
Type and size	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2
Capacity	200000 seedlings per season	200000 seedlings	200000 seedlings	200000 seedlings	200000 seedlings
Full Accessories	Yes	Yes	Yes	Yes	Yes
Name of the association/Beneficiaries	Mr. Kamal Al-Se'elah	Al-Hayat Women Association	Al-Rif Agricultural Women Association	Ms. Helia Ali Muthana	Horiah Ahmed
Number of Beneficiaries	Direct: 35 Indirect: 250	Direct: 30 Indirect: 400	Direct: 30 Indirect: 530	Direct: 25 Indirect: 720	Direct: 30 Indirect: 150
Men Nurseries	1	1	1	1	1
Location	Al-Gaheliah – Hamdan/Arhab District	Al-Nashmah District	Mafraq Jiblah-Jiblah District	Ma'aber District	Fyhan Al-Dwmar Al-Salafiah District
Type and size	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2	Plastic Greenhouse (373.5)M^2
Capacity	200000 seedlings	200000 seedlings per season	200000 seedlings per season	200000 seedlings per season	200000 seedlings per season
Full Accessories	Yes	Yes	Yes	Yes	Yes
Name of the association/Beneficiaries	Al-Gaheliah	Mr. Faress Abdo Ali	Mr. Bakil Ahmed	Mr. Saroub Abdullah Saroub	Mohmed Ahmed Al-Ashshah
Number of Beneficiaries	Direct: 25 Indirect: 320	Direct: 25 Indirect: 120	Direct: 25 Indirect: 250	Direct: 25 Indirect: 920	Direct: 25 Indirect: 330

III. Home Gardens in Lahj and Taiz

CLP has implemented this program in twelve governorate centers in addition to Thulla historic town; the total cost spent is 1.3 million USD because costs were estimated to be 100,000 USD/per town; program was discussed with the General Directorate (GD) of agricultural extension at the MAI whose management staff has fully agreed with this idea. Implementing partners were three agencies; GD of extension at MAI was contracted to execute gardens in six towns, Yemeni Association for Sustainable Agriculture was contracted to implement gardens in three towns and Al-Thuraya Consultants in three governorate centers and Thulla

Beneficiaries of home gardens have received training on designing and operating of home gardens including land preparation, seeds for eight different type of vegetables, seedlings for tomato, guava, coffee etc. In addition to a 800 l water tank and pipes to harvest water from the roofs to irrigate the garden, they have also been trained how to use waste water of the kitchen as second source for irrigation.

After discussions with beneficiaries we moved to visit the locations where we have not found any vegetable gardens, in some locations there are some ruins left but in others nothing left that give the impression that a home garden was here, the reasons for the collapsing of this program as given by the beneficiaries are:

- Spreading of termites in the soil of Taiz area which are eating roots of the plants and cause damages that plants can't grow well.
- Size of the home garden is very small which does not exceed 40 m2 maximum and some gardens are smaller in which we have planted few tomato, cucumber and chili plants and production didn't cover 10% of the family daily needs.
- Before CLP interventions, we didn't have any home gardens and can't talk about size of the garden, the crops produced and quantity of production.
- Costs for operating and managing of home gardens is very expensive, production cost is much higher than the market price for vegetables due to the type of soil here in Taiz which is too shallow while underground is filled with rocks and stones that allow very quick penetration of water to very deep layer where vegetable roots can't reach any more, shortages of domestic water is a major challenge in Taiz, therefore waste water and water harvested from the roofs is not enough to irrigate such gardens.
- We think such gardens are not practical for the towns, and would be more profitable in the villages because: a) poor people and/or low income categories like ourselves, don't often have enough empty space near their houses; b) income generated from such small plot does not attract families to spend time to take care of the garden; c) most of the women living in the towns don't actually have any background about farming or they are busy with children and housekeeping or they have jobs, and their free time is very limited; d) the most difficult input for home gardens in the towns is the water for irrigating vegetable gardens which need a lot of water, waste water from kitchen and/or the house roof is not enough at all, people in the towns are suffering from shortages of water supply, here in Taiz the majority of the population are buying water transported by trucks which is very expensive, public water supply does not come for months, which means that household can't waste any drip of water.
- In Taiz the annual rainfall is relatively enough but the ideal crop to be planted in the home gardens is fruit trees which have low water requirements and can survive in winter and during the drought period.
- About 75% of those gardens have totally disappeared and in 25% of the houses you can still find some equipment like the water tanks and pipes conveying rainwater from the roof to the tank which is often used for home consumption.

Experience before CLP and sustainability

1. Percentage of FG participants who already had a vegetable garden?
None in Taiz and 8 of 29 in Lahj

2. Percentage who established a garden with CLP support and who still have a garden
22 of 29 in Lahj

3. Reasons why FG participants who established a garden did not continue their garden

Why did you decide not to continue? Lack of experience, Not enough water; couldn't buy improved seeds (expensive; no protecting nets for gardens

4. Impact on Production of Household Vegetables
10 of participants said that CLP activities in household vegetables improve the capability of farm families to improve production of vegetables for household consumption where there is an increase in production ranging between 20% & 30%.

5. Which crops are grown in the vegetable garden
Okra, Eggplant, green chili, radishes, watercress, coriander, onions, Jew's mallow, hibiscus sabdariffa
Okra, eggplant, coriander, green chili; Some fruit trees: lemon pomegrante, papaya, palm

6. Vegetable garden size
48m2 to 150 m2
70m2 to 214m2

7. Volume of production from gardens
20% to 30% increase

8. Percentage of production used for family consumption
100%
80% said production covers 50% of family need

9. Percentage of production that is sold: 0

10. Perceptions of MAI: One of the participants emphasized that the agricultural services are improved compared to two years ago (2012) but they were not at the desired levels
Ag engineers responded that garden programs are not a good idea for towns

IV. BEEKEEPING / HONEY PRODUCTION

1. Did CLP activities in honey improve the capability of farmers to improve production?

Taiz: CLP activities in the field of honey production was actually limited in the whole governorates, honey producers in most of the governorates, except Hadramout, have only received training and capacity building programs to assist beekeepers to improve production and increase family income, honey is the most profitable business in rural areas and number of beekeepers is increasing every year; honey production is practiced nearly in all the governorates with different intensity, Hadramout, Shabwah and Al-Dala'a are the governorates where large quantity of honey is produced, in the second level comes Taiz, Ibb, Hajjah, Al-Mahwit and Dhamar.

In Taiz CLP activities in the field of honey production where limited to one training course on honey quality which has been provided to some trainees who are actually not directly involved with beekeeping and honey production.
Discussions with three people benefited from the training provided by CLP have supplied us with the following results:

- Beneficiaries are living in Taiz town and employed by the Honey Production Development Project (HPDP), they have attended the training organized by CLP on honey quality to refresh their knowledge on honey production but in fact they are neither beekeepers nor honey producers.
- The HPDP has already been stopped several years ago and project management is lacking financial resources to implement development programs in the field of honey production even training programs are not organized but if other development projects and/or organizations want to conduct training on honey production like CLP HPDP provide the training facilities available in the project office.
- These trainees cannot provide any information or figures regarding honey production before and after CLP intervention with quantity of production because they are not beekeepers.

1.1. Adoption of new agricultural practices or technologies for honey

Lahj: Five out of 6 (83%) of the beekeepers said that CLP activities in the field of beekeeping improved the capability of farmers to improve production. The six beekeepers had the following numbers of beehives

13 beehives
10 beehives
27 beehives
15 beehives
25 beehives
15 beehives

1.2. Percentage of FG participants who have adopted CLP-promoted technology/practices
Five of beekeepers indicated that they have adopted the new agricultural practices and technologies for honey which be known during CLP training courses. Another one, who worked as a beekeeping courses trainer, added: "About 80% from trainees adopted the new agricultural practices and technologies for honey

<u>What new practices or technologies promoted by CLP have you adopted?</u>

Splitting bee colonies, Collecting and sorting honey, Opening and testing beehives, Pests combating , Bees movements according to bee pastures, Beekeepers Clothes, Smoking on the beehives, Knives, Beekeeper mask.

<u>Why have you chosen to adopt those technologies</u>

Five of the beekeepers answered saying we adopted these practices and technologies because we became convinced that they will greatly help us to improve working conditions and increase the production of honey.

<u>Impact of new agricultural practices or technologies for honey:</u>

Four of beekeepers replied saying yes, the adoption of these technologies led to increase honey production gradually and with varying degrees, but it can be said that there is an increase in the production rate up to 50%.
One of the beekeepers said that the costs had decreased by 25-35%.

Percentage increase in revenue
Five of beekeepers indicated that there is a positive change in families income where increasing rate of income is ranging between50-70% .

Percentage who plan to continue using new technologies/practices in future
100%

Why do you plan to continue to apply the new practices and technologies
four of beekeepers answered. They added: "We will continue to use it in the coming period because from experience we became convinced that these practices and technologies facilitated our work and led to good results".

Why do you not plan to continue to apply the new practices and technologies?
Prompt 5: Are there any technologies or practices for honey that were promoted by CLP that you have chosen
not to adopt

Do you plan on adopting any of the new agricultural practices or technologies in future?
Yes

Which agricultural practices or technologies do you plan to adopt in future?
Four of beekeepers indicated that there are about 70% of bee owners are going to adopt the following agricultural practices and technologies:
Yemeni improved beehive.
Wasps Traps.

What conditions would need to be present for you to adopt those technologies in future?
Two of beekeepers said that they want more training courses especially those who did not have the chance to attend the previous courses, as well as helping to provide the tools required to do so and ensuring continuous follow-up of our activity.

Have other farmers adopted?
There are other beekeepers (70%) have adopted the use of these practices and technologies because they saw the good results that achieved by their colleagues in the production of honey", The beekeeping trainer said.

What new practices or technologies for honey promoted by CLP have you observed other farmers adopting?
Four of the beekeepers indicated that other farmers applied the following new agricultural practices and technologies: Splitting bee colonies, Methods increase the numbers of bees, Opening and testing beehives, Dealing with bees.

From your observation, what has been the experience of the farmers who have adopted the new agricultural practices or technologies for honey promoted by CLP?

Four of beekeepers noted that they have gained new experiences in dealing with bees and methods of increasing bees as well as collecting and sorting honey.

V. WOMEN GROUPS

1. Role of women in their farms

Ibb: About 55% (five out nine) of the FGD member said they cultivate potatoes, beans, peppers, chili, pumpkins, coffee and maize. However, 44% said they grow coffee.

Moreover, the majority of women (88%) reported that they have livestock such as cows, goat and sheep. Most of the milk, yoghurt, and ghee production about 80% consume by the family members, however 10 to 20% are sold. And they sell a live animal to the market when they need money for purchasing clothes during Eid times or sometimes for medical treatment.

2. What does your farm produce?

3. What Agriculture activities did CLP intervention support in your community

Food processing

100% said drip irrigation system, training courses on coffee in field cultivation practices and technologies such as seeding, planting, pruning, using fertilizers and pest management, post harvesting practices and marketing.; pumping water by solar pumps; training on food processing , installing one greenhouse in Shiban, Jiblah district and other seedling horticulture nursery, CLP project taught and trained the farmers how to prepare and use organic fertilizer, how to plant the vegetables, seedling and transplanting.

Sanaa: coffee, beekeeping, immunization in sheep. It was also the establishment of a nursery to produce coffee seedlings in the village of Mussenh with a capacity of 10-12 thousand seedlings, where there are currently 6,000 coffee seedlings

Raymah: Greenhouses and Training courses in food industries.

Raymah: 100%) - They established coffee nursery

4. Who participates in deciding what to grow on your farm

Ibb: 100% said other male in family (40% husband, 40% father, 10% said brother and 10 % said father with grandmother

G2: 7 of 9 said men, 1 said grandmother and one said parents and wise men in village
Raymah: G1(60%) The women - and (40%) - Both men and women

G2(50%) Women said the father and (50%) said the husband

G3(100%) - Both men and women

Sanaa: Both men and women (husband and wife).

5. Who participates in deciding on investment decisions on your farm (that is, what to spend money on for productive purposes

Raymah: (30%) - Man and (30%) - The woman and (40%) - Both women and me

G2: 100%- Both men and women

G3: men 100%

Sanaa: women farmers do not have any type of investment, except for only one of the participants reported that the best crop she produces and sells in the market is the tomatoes, while according to the rest of the participants what they produce from the tomato crop is for home use

6. What is your role in the farm

Ibb, G1: growing and harvesting, takes care of the cows and milking., pruning, harvesting and cooking food for the farmers, removing undesired grass from the fields, pruning and irrigation.

G2: removing undesired grass from the fields, separating between plants, harvesting, thinning out the plants, collection of fodder and cooking food for the farmers; Collect grass for the cows, harvesting, binding of thin maize stems, takes care of her own house, garden and carries out all the work of a farmer, pruning, harvesting, and cut trees to get woods for cooking, operates the water pump, harvests the coffee products

Sanaa: , manage animal husbandry and providing the fodder and feeding the animals and clean byre or shelter, Regarding the family farm we cooperate in the work, women perform all that matters relating to livestock like cleaning barns and milking cows, but the man does not interfere at all,

Ramah G1: 100%) We clean place to grow coffee, and sprayed with water and we planted a seed of coffee and covered with soil and we process irrigated and nurtured to the time of harvest and harvest coffee in his time

G2: greenhouses - pruning and fruit picking. 2) open ground - cleaning the ground of weeds, irrigate and harvest the crop with the participation of men

G3: 100%) We clean place to grow coffee, and sprayed with water and we planted a seed of coffee and covered with soil and we process irrigated and nurtured to the time of harvest and harvest coffee in his time

7. Do you yourself have a parcel of land that you farm & on which you are responsible for making decisions on?

Only in Ibb there was one women out of 9 who had land, none of others in all groups did.

8. Participation of women farmers in CLP training

Ibb: 70% stated that "they have participated in all the training sessions that hold by CLP project: - Coffee, irrigation systems, - Coffee post harvesting practices - Adminstated greenhouses, - Operating coffee seedling nursery ,- Food processing
G2: 1 did not, 4 took part in container planting course, 6 food processing, 1 greehouse bulding (some took part in more than one topic)

Sanaa: 7 courses in the production and cultivation of coffee from start to finish, which included planting until harvest, 7 attended honey course, all attended irigation technology course, all attended course on pest control,

Raymah G1: 100% modern methods to grow coffee and food industries

G2: 100% how to grow tomatoes, cucumbers, carrots, onions, potatoes and squash.

G3: Coffee cultivation, the treatment of post-harvest coffee, coffee marketing and management and operation of coffee nurseries

9. Have you visited or participated in the horticulture and coffee demonstration sites established by CLP

Ibb: 80%) reported that "they have visited greenhouse demonstration that was supported and organized by the CLP, 20% of participants stated that "they have visited the coffee nursery and learnt how to differ the types of coffee trees

G2: 44% yes and 55% of participants stated that "they have not visited any demonstrations or field days

Raymah G1: 100%) Yes,

G2: 100%) - No, we do not visit or participate in the activities of horticulture and coffee production sites created by the CLP

G3: Yes, more than (70%) of women are visiting the site of nursery coffee

Sanaa: one did Bait El Ganis, drip irrigation for coffee

10. Do you think that the CLP training activities adequately took into account the role of women in farming

Ibb: G1: 100%) strongly agreed that "the training took the role of women farmers in farming sufficiently

G2: 55%) answered as "Yes

Raymah G1: 100%) Yes, but not enough and we want the project to involve women more broadly, especially in the training courses in the field of rural women development

G2: 100%) - Yes, training activities carried out by the CLP taken into consideration sufficiently the role of women in agriculture and for that reason has to take benefits of these training activities in the field of agriculture

G3: 100%) No, but we want from the project in the future to take that into consideration and gave her a bigger role in areas that have a relationship in agricultural work

Sanaa: (about 90%) answered that they received the same training received by men, and there was no types of targeted training for women in particular

11. Impact of CLP interventions on production

11.1. On your farm, have you (and your husband) adopted any CLP agricultural practices or technologies? Which ones

Ibb G1: 1 of 10 did not

G2: 77%) did not apply practices or technologies of CLP , 1 adopted irrigation, 2 food processing

Raymah: G1: 70%) - the cultivation of coffee seedlings and modern irrigation methods and (30%) have no financial possibilities at the present time

G2: 100%) - Yes, we used the technique of drip irrigation

G3: 100%) Work in the production of seedlings coffee, and coffee-growing by modern methods (after attendance of courses held by the project

11.2. Impact on production in terms of quantity and quality

Ibb G1: 100%) Work in the production of seedlings coffee, and coffee-growing by modern methods (after attendance of courses held by the project

G2: just started and not able to observe results yet

Raymah G1: (100%) There is no production yet for coffee crop

G2: 100%) - An increase in production, reducing the effort and increase in income (because all of them are illiterate

G3: 100%) It is not time to talk about it (no production yet)

Sanaa: 80% of the FGD said: we have implemented and adopted agricultural operations and the post-harvest processes, but unfortunately; we could not recognize increase of coffee production because of the shortage of irrigation water, no impact but mostly because there was lack of water; I have 20 coffee trees, I prune the coffee tree in my farm, and that led to give good results in growth. As I've cut the top of the tree, I noted that the seeds varied, and has became larger and even its smell has changed for the better. The tree used to produce 4Kg and now 12 Kg. Seven of my neighbors have applied that and increased production

11.3. Impact of CLP interventions on means of family living

Ibb G1: 50% less time on the farm, use it for the home

G2: One participant only answered: they buy the excess fresh vegetables and fruits from the market that cost less, make juices and can types of vegetables and sell. This brought income to them and at the same time provided juices for children and canned food for the families in a clean way and without using any chemicals

Raymah G1: 100%) - There is a decrease in time than before, thanks to the project, that has us a modern way of the process of drip irrigation; 100%) - Back to the home in a appropriate time

G2: 100%) - There was a change in the volume of production big and tasteless and taste, as well as to protect the product from insects

G3: n/a

11.4. impact on work load

Ibb: n/a

Sanaa: n/a

Raymah: G1: n/a; G2: 100%) - lower working hours at home, 100%) - To do all the housework, child care, food preparation and taking some rest

G3: 100%) A decrease in the working hours. And because of the existence of the modern way of irrigation (drip irrigation system), – (100%) Go back in time to the house

11.5. impact on family income

Raymah G2: 100%) - There is an increase in income, but spend this extra income for the family itself to meet the requirements and the necessary requirements to them

Sanaa: some increase mentioned

No others

11.6. Impact of CLP interventions on welfare of the family

Ibb: there was no change because the plants are still small. With regard to vegetable and fruits planting there was no change because they have affected adversely from the raised prices in fuels"

G2: All participants said that "their children are well fed, they are of good health and they all go to school, not as an impact of CLP interventions

Raymah G1: 100%) - There is a decrease in time than before, thanks to the project, that has us a modern way of the process of drip irrigation

G2/3: n/a

11.7. impact on the availability of food for household consumption

Raymah g2 only: 100%) - To take advantage of the family increase production and take advantage of the increased income in the household consumption and improve the livelihood of the fa

11.8. impact on nutrition of children

G2 Raymah : 100%) –There is impact on the growth and health of children

Sanaa: About 50% of the FGD answered that there is a simple improvement in the availability of food for home consumption, and that resulted to improved child nutrition

11.9. impact on family health

Raymah: G2 only 100%) The impact on the families they are in good health and lack of continuous exposure to disease

11.10 impact on children education

Raymah G2: 100%) - The kids go to school more due to increased income

Sanaa: One of the attendees responded that they were able to buy a new bag and belongings to go to school for her daughter this year in income from sales of tomatoes she grows in the garden of the house

12. Recommendations for future agricultural project

Ibb: Introducing and supporting beekeeping, animal production practices and technologies related to goats and sheep, more greenhouses, encourage farmers to sell horticulture seedling, practices and technologies related to miilite , sorgum and maize crops.

G2: Introducing and supporting beekeeping; Involving animal production practices and technologies in the future programs; Supporting more greenhouses; Encouraging farmers to sell horticulture seedling; Introducing strawberry technologies and practices

Raymah G1: 100%) Tanks to harvest rain water and training courses

G2: 100%) - Connecting water networks by modern irrigation for agriculture and to take into consideration role of women in agriculture projects in the future to play a good role in the implementation of women rural development activities

G3: water harvesting tanks, training courses in the economics of housekeeping

Sanaa: , we need to get improved seeds, as well as agricultural tools (small shovels and hoes), to help women in home gardening, need support to create water barriers,

Report on
Focus Group Discussion with MAI Officials, Agriculture Extension Agents, Farmer Associations and Women's Groups

Prompt 1: CLP stands for the Community Livelihoods Project. The goal of CLP was to improve livelihoods in targeted communities. How effective were CLP interventions in achieving that goal?

MAI officials in Lahj, Al-Dhale'a, Ibb and Taiz saying that the interventions of CLP had good effectiveness on improving livelihood for targeted groups because they fulfilled their needs. Agriculture Extension Agents added that the various training courses had a great impact in increasing the knowledge of the beneficiary and their positive interaction towards achieving the desired goals.

Probe 1: How successful was CLP at achieving its goals of improving livelihoods?

MAI officials and Agriculture Extension Agents confirmed that CLP has successfully achieved their goal in improving the livelihood of the beneficiary. However, the Woman's Group Manager in MAI in Taiz has pointed out that CLP was not successful in achieving their goals especially in terms of women involvement in all phases of project execution and insuring effective participation for women in achieving these goals.

Probe 2: Were there CLP interventions that successfully improved livelihoods in targeted communities in your governorate/district?

MAI officials and Agriculture Extension Agents confirmed that the interventions of CLP in vegetables, honey and poultry production (except for Lahj), Home Gardens, Animal Health, Drip Irrigation, Solar Power and Protected Homes were successful as they have touched beneficiaries needs. However, MAI official in Taiz and Ibb and Agriculture Extension Agency's official stated that Protected Homes and Arboretums were the most effective interventions of all to improve productive powers.

Drill 1: What elements of CLP have been effective?

75% of participants have said that the effective elements were:

- Chosen activities were based on targeted people's needs.
- Implementing training courses before and during activity execution.
- Choice of appropriate locations.
- Availability of work force.

Drill 2: What made them effective?

80% of the participants have pointed out that what made those elements effective is the interaction of the targeted groups with CLP activities as well as the cooperation of competent authorities in the governorates.

Probe 3: Were there CLP interventions that were not effective in improved livelihoods in targeted communities in your governorate/district?

MAI officials in Lahj said that there were ineffective interventions.

Drill 1: What were some examples?

MAI official in Lahj explained that Laying Hens, which were provided to Al-Qurashi village farmers in Tuban district, were not successful because they were brought from cold areas and distributed in the summer where the temperature was very high causing them to die within only two months (there were 60 of them). The Agriculture Extension Agent has added that CLP has distributed pomegranate implants to farmers, but due to climate and

environmental conditions that were not suitable for planting this fruit in Tuban district led the plantation of this fruit to not succeed.

MAI official in Taiz said that the average area of Home Gardens was small (about 3x4 m^2). In addition, the improved seeds distributed by CLP were not much, which did not help achieving the expected success.

Drill 2: Why were they not effective? What was missing to make them effective?

The Agriculture Extension Agency official has pointed out that CLP was supposed to know the agricultural specialists opinions on what implants could be distributed to farmers and make use of Laying Hens in the district to distribute to farmers instead of bringing the hens from cold areas.

Prompt 2: To what extent has CLP contributed to building the capacity of extension agents and government officials to support farmers?

MAI officials and Agriculture Extension Agents have declared that CLP has contributed in building the capacity of extension agents and government officials to support farmers. "Various courses were conducted by CLP. However, in my opinion, they were not sufficient and comprehensive to all specializations that cover the requirements of CLP activities," said Agriculture Extension Agent, Taiz. "The skills and capacity of agricultural extensions in the governorate were improved as 25 agricultural engineers and three veterinarians were trained and are now working on field," said MAI official in Al-Dhale'a.

Probe 1: Did the extension workers at your office participated in CLP field activities?

Agriculture Extension Agent in Taiz said, "We have participated in some CLP field activities. However, there were no integration nor coordination based on mutual programs. It is also worth pointing out that extension agency was not involved in all CLP activities despite the need to integration of all efforts."

Woman's Group official in Taiz has pointed out that female extension agents participated in only one training course, which was the one related to food industry. In addition, the MAI official in Taiz said that it was required training courses in Livestock and training courses for farmers on how to prepare concentrated fodder.

As for the agriculture extension official in Ibb, he has pointed out that coordination in 2012 was poor, but 2013 and 2014 have witnessed significant improvements which led to better results in extension work on field.

MAI official in Al-Dhale'a has stated that there was involvement in CLP field activities especially in extension work, during and after establishment of Home Gardens, in livestock and honey production.

Probe 2: What is the status of agriculture extension services in the governorates in which CLP strengthened extension service.

Agriculture extension agents in the four governorates have pointed out that extension services have witnessed significant improvements after after extension services reinforcement made by CLP represented basically in conducting anti-(tuta-absoluta) campaigns, plague vaccinations and sheep feasibility. However, it is worth mentioning that coordination between competent authorities was not as expected.

Prompt 3: CLP implemented activities targeting the following sectors: Coffee, horticulture, honey. CLP interventions also supported the following activities : establishing home gardens; livestock vaccination campaigns against PPR and Sheep Pox; campaign against tuta-absoluta; and on-farm food processing. Within each sector and for each activity, CLP introduced new technologies and practices. **What has been the**

impact of these CLP interventions on agriculture productivity and livelihoods of beneficiary farmers in your governorates?

More than 80% of the participants have confirmed that new technologies and practices introduced by CLP have affected agricultural productivity and the livelihoods in the governorates.

<u>Probe 1</u>: What has been the impact on productivity of beneficiary farmers?

Agriculture extension official in Taiz has pointed out that the effect of new technologies and practices on beneficiary farmers productivity was significant especially in protected homes where the productivity was up to 7 times the productivity before. In addition to rationalization of water consumption where water consumption is 70% less; meaning that product cost will be reduced, which led many farmers to apply for getting help building protected homes. He added that there is a wide spread of coffee cultivation because the arboretum made it easy to get the implants for 300 Y.R. per one. Note that this arboretum is run by a feminist association in Taiz. As well as poultry farming has significantly improved to the extent that many farmers have switched their focus onto poultry farming.

Agricultural extension official in Lahj has stated that the impact on farmers productivity was good as home gardens were capable of providing more than half the needs of the families to vegetables, and a noticeable increase of honey production is also noted and he added, "veterinarian campaigns, improved seeds introduction, and conducting training courses on manure production in 8 areas: Al-Feyosh, Be'r Jaber, Al-Quraish, Al-Hubail, Al-Kubbah, Al-Nuba, Saber and Maghafa has significantly affected farmers productivity."

"Farmers productivity has increased by introducing new technologies and practices, where farmers who benefitted from home gardens were able to provide their family's needs from vegetables whose productivity were limited before CLP. In addition, there is an increase in eggs production as well as a significant improvement in livestock production through sheep fattening, vaccinating 2800 sheep heads and increasing livestock sales as well as increasing honey production and a noticeable increase in beehives," says MAI official.

Additionally, agriculture extension official in Dhale'a declared that there are an increasing number of other farmers who established home gardens as others demand help in establishing ones for themselves.

MAI official in Ibb said that there is an improvement in productivity which could be proven as follows:

- Animal vaccination led to improving animal production and growth in livestock.
- Requests from 115 farmers to build protected homes.
- Rationalization of water consumption in protected homes.
- Significant growth in honey and vegetables production in addition to the new variation in vegetables cultivation that did not exist before CLP.
- Training women on food industry performed by feminist associations.
- Demands raised by many farmers that Coffee must replace Qat.

<u>Probe 2</u>: How appropriate and suitable to farmers' conditions were the following technologies promoted by CLP: greenhouse, solar pumps and drip irrigation?

More than 90% of the participants confirmed that technologies promoted by CLP were convenient and suits all conditions and farmers where farmers accepted and dealt with them positively and touched, through experience, how effective they were in increasing productivity.

<u>Probe 3</u>: In each of these sector, to what extent did farmers in your governorate or

district adopt the technologies and practices promoted by CLP:

Agriculture extension official in Al-Dhale'a said that the rate of adoption of irrigation networks in coffee cultivation is estimated to be as much as 20%.

Taiz agriculture extension official said that the technologies were adopted because farmers have accepted them and could deal with them well. In addition, MAI official in Lahj said, "due to the success of protected homes, we demand these technologies be introduced to Lahj governorate whether with the help of development projects or funders. Farmers are willing to contribute with a portion of the cost.

Drill 1: What were the factors that contributed to or impeded the adoption by farmers on their own farms of CLP-promoted technologies and practices?

Factors contributing in adoption of technologies and agricultural practices as pointed out by participants are:

- The need of farmers to these technologies and practices and their ease of use.
- Training farmers on how to apply them through training courses and extension activities.
- Constant follow up by stakeholders.

Drill 2: How accessible financially are these technologies to farmers? Do you think all farmers have the financial capacity to adopt these technologies?

MAI official in Lahj has pointed out that farmers can get these technologies through development projects like CLP as a support given to the farmers with the possibility that farmers contribute with a portion of the cost, through agricultural production support fund or CAC bank through soft loans. Extension official in Taiz added that protected homes and solar power cannot be entered without support stating that farmers should contribute with 30% of the total cost of introducing those technologies.

Drill 3: Was there anything missing from CLP intervention that would have resulted in a higher rate of adoption?

Extension official in Ibb said that there are great activities that do not suit farmers capabilities like arboretums and protected homes where it was possible to deal with agricultural associations available in the areas to operate these facilities. The MAI official in Taiz has added that CLP interventions were limited in comparison with the population and the geographical spread and we'd like activities to grow in the next stages.

Drill 4: CLP value chain activities in horticulture, coffee and honey began with 18 months remaining in the project. What impact, if any, did this timing have on the adoption rate?

"Farmers could, through the short period of time, adopt modern technologies and practices in activities introduced by CLP. As well as having other farmers adopting some modern technologies and practices," said MAI official, Lahj.

MAI official in Al-Dhale'a has confirmed that adoption ratio is high and there is a marked growth in adoption by other farmers especially in home gardens and honey.

Extension agents have also confirmed that farmers did adopt modern technologies and practices that are related to gardening as well as coffee and honey production depending on their capabilities.

Probe 4: What has been the impact on the quality of produce?

70% of participants mutually confirmed that CLP activities contributed in improved quality of products because they were free of chemicals, and due to the use of manure, improved seeds and arboretum implants.

Probe 5: What has been the impact household income?

More than 80% pointed out that there is a significant improvement in beneficiary families income and that was through providing their needs of vegetables, honey and eggs or through selling the production surplus especially of poultry and livestock.

Probe 6: What has been the impact on access to food?

MAI official in Al-Dhale'a has pointed out that there is an impact of obtaining food as the increase of production led to increasing nutrition level among farmers.

Probe 7: What has been the impact on rural employment opportunities? For men, for women, for youth?

MAI officials and agriculture extension agents have pointed out that CLP activities, despite being limited, have contributed in providing employment opportunities for men, women and the youth.

Probe 8: What has been the impact on the ability of CLP beneficiaries to sustain their families?

"There was a positive impact on the beneficiaries' capabilities in sustaining their families through involving family members in work and finding source of income as well as providing settlement," MAI officials clarified.

Prompt 4: How did CLP hand over grants and their related activities when they ended to the beneficiaries and communities to the appropriate entities?

Taiz extension official said, "the project is being executed through the coordinator, then after project completion we are invited to participate in hand over. We demanded that we participate in coordination with CLP to continue project execution and facilitate difficulties."

"We, for example, were invited by CLP to be handed over the arboretum after it is built and ready for use. However, agriculture extension took the initiative and continued building the arboretum," said extension official, Ibb.

Prompt 5. (Efficiency/Coordination with other Development Partners): How well did CLP interventions take into consideration the interventions of other Development Agencies and the current agricultural strategy of MAI?

70% of the participants pointed out that development projects in governorates falling under the supervision of different organizations perform their activities without coordination. However, they were working under the strategies of MAI.

Probe 1: In addition to CLP were there other agricultural projects were being implemented in your governorate?

"There are different other projects than the CLP working in governorates, but there is no coordination between them. For example, CLP distributed enhanced seeds for home gardens in one of the villages that had previous support from other projects in establishing home gardens," said MAI official, Ibb.

"The Branch of MAI in the governorate does coordination between the various development projects so as to ensure non-overlapping", said MAI official, Al-Dhale'a.

"There is no coordination between different projects as every project works specifically within

their own domain and scope which caused the activities of these projects not to overlap," said MAI official, Taiz.

Agriculture extension official, Taiz added, "Locations for executing projects activities are selected without coordination with competent authorities."

As agriculture extension official in Lahj has pointed out that social fund of development has already executed the home gardens project, but without intervention or overlapping with CLP activities since a different area was selected for that purpose.

Probe 2: How well did CLP interventions complement the interventions that were being implemented by other agricultural projects?

……

Probe 3: How well did CLP interventions address the priorities established in the current agricultural strategy of MAI?

………

Prompt 6: Do you know of any international or national projects have adopted or are planning to adopt any of CLP-promoted technologies or practices?

MAI official, Ibb has clarified that, due to the different domains the projects work on and different target groups, there is no need to adopt modern technologies and practices promoted by CLP.

Probe 1: Which international or national projects operating in your governorate have adopted or are planning to adopt which technologies or practices?

………..

Probe 2: (for Directors): In your governorate-level annual work plans, are you including or are you planning to include any of the CLP-promoted technologies or practices?

MAI official in Ibb and agriculture extension official in Taiz answered, "We embed our plans by generalizing successful results and using technologies and practices including those promoted by CLP."

Prompt 7. (Gender) What has been the impact of CLP interventions on gender roles in the targeted communities?

Woman development official in Taiz said, "Despite that women do most of the agricultural work, the impact of CLP interventions would not keep pace of this special role of a woman if CLP interventions were limited to organizing a training course on food industries for women."

Probe 1: How responsive has CLP been to the needs of both women and men? Explain.

More than 70% of participants have pointed out that CLP responded to women and men's needs where the work in home gardens is mutual for both men and women. Women as well work in food industry as feminist associations in Ibb train women on food industries. In addition to the existence of an arboretum that is run by a feminist association in Taiz.

Drill 1: How adequately did CLP consider gender roles in planning their activities?

……..

Drill 2: Could gender roles have been more effectively taken into account? If so, how?

How would that have resulted in a better impact on the livelihoods of beneficiaries?

Woman's development officials in Taiz, Al-Dhale'a and Lahj have pointed out that gender roles could've been taken effectively through women involvement in planning and preparation of projects and contribution in execution and operation.

Probe 2: How have CLP interventions affected thework load of men, women and children at the farm level?

……

Drill I: Have there been any consequences, either positive or negative, on men, women or children on the change in work load resulting from CLP interventions?

…….

Prompt 8: (Sustainability) How sustainable are the results of CLP interventions?

More than 70% of the participants confirmed that successful interventions of CLP will continue because they have become existing productive activities and facilities.

Probe 1: Which CLP results are most likely to be sustainable (e.g., production capacity, market access, policy, extension capacity) and why?

80% of the participants that achieved results in increasing productive capability in vegetable production, implants, livestock, poultry, eggs and coffee and the growth in those activities will increase market sales leading to improved financial status of the beneficiary farmers which will enable them to continue with those activities.

Probe 2: Are the outcomes related to adoption of better practices sustainable, example: are the participants likely to continue after CLP program ends?

All participants have pointed out that adopting modern technologies and practices is the key factor that led to achieving positive results. Therefore, it is expected –and natural –to continue with them.

Probe 3: Which outcomes are likely to be sustainable, and why?

………

Probe 4: Which outcomes are likely to be unsustainable, and why?

………

Probe 5: What could have been done to increase the sustainability of CLP outcomes?

………

Prompt 9: In general, how satisfied are you with the CLP Project and why?

Participants have shown their satisfaction saying that CLP has:

- Opened farmers eyes encouraging their initiatives.
- Provided work and employment opportunities.
- Led to increasing farmers awareness.
- Improvement in farmers livelihoods.

Prompt 10: What are the lessons that might learn from CLP project?

- Introducing modern technologies and practices that were accepted by the people.
- Activating relationship between extension agents and farmers.

- Contributed in raising farmer's productivity.
- Encourage women to contribute in rural development.
- Contributed in improving family income.
- Helped exploit agricultural areas.

"CLP has lit a candle, and we should not let it blow out," said one of the participants.

Prompt 11: What are your recommendations for future agricultural projects to increase the resilience of rural communities?

- Work on building protected homes as they are economically feasible.
- Establishing arboretums for different corps.
- Working on introducing solar power technologies.
- Providing soft loans to farmers.
- Continue to follow up and support successful activities introduced by CLP.
- Supporting beekeepers with modern bee hives and provide them with training courses.
- Intensify training courses for agricultural extension agents to keep pace with the requirements of extension work.
- Continue to hold training sessions in food industry.
- Training farmers on the production of concentrated fodder.
- Support growth in cultivation of figs for it is considered among fruits that don't consume much water, is cost effective and is very nutritious.
- Introducing modern irrigation networks for vegetables and coffee corps.
- Building cement passages or irrigation water pipes based on the nature and conditions of each area.
- Establishing clarifying fields for vegetables and fruit corps.
- Considering to raise livestock and poultry.
- Providing the necessary support to help farmers producing manure.
- Involving rural women in the integrated rural development process and taking into consideration training and qualifying them.

***NOTE*:**

Aden governorate had participated in the focus group discussion and they provided suggestions and projects that will be provided later. Note that there isn't any CLP activities in Aden.

Notes on the Sanaa Focus Group Discussion for MAI Officials, Agriculture Extension Agents, Farmer Associations and Women's Groups
August 11, 2014, Sanaa.

How effective were CLP interventions in achieving the goal of improving livelihood?

Participants enumerated the CLP interventions in their respective governorates.

Amran:

- Support to the Ag office, in terms of office furniture and equipment (but all was lost during the war)
- Extension services in 7 districts, with other districts being left out for security reasons
- Extension services are in touch with farmers and handle their requests and complaints
- Provided animal feed and salts that benefited a few families and not all since the quantities were limited.
- Home gardens targeted about 150 families in Amran city, was good but limited (WGBL) wished it covered the whole district
- Laying chickens distributed to 125 families in Amran city (WGBL)
- Several interventions were done without our knowledge as AG directorate
- 2 training workshops in food processing (WGBL)
- 2 workshops for livestock
- Honey: incomplete project, target was 300 beekeepers but was not completed after training was done. There were two trainings for Thula and Thebeen but project stopped and no beehives were distributed although the region has the best honey in the country.
- WD officer said: home gardens and food processing training should cover the rural areas too. Governorate is wide and some areas are not reached by vegetables produced in main areas. Also has nutritional benefits for families, provides self-sufficiency and reduces the need to travel long distances to get produce

Raymah:

- One demonstration site for coffee with irrigation system
- Planting of 1300 coffee trees (or 2700)
- CLP received 7 suggested sites and chose one (Kadaha) according to criteria including proximity to paved road.
- 12 Ozla targeted, 4 training targeted 155 coffee farmers (harvesting, sorting, irrigation, and included practical training). Farmers came out with a positive impression and disposition to use new modern practices for planting and pruning.
- One greenhouse for vegetables in ozla of Al Kotb district of Jabeen
- Program targeted 3 districts (Jabeen, Salafiya, Jaafariya)
- In a few weeks there were 15 more GH built by farmers on their own and several requests from farmers for support to build GHs
- In 3 months, there were 8 green houses built from locally available materials by farmers who received the training on GHs
- I coffee nursery in Al Saqui in Jaafariya (men) and one in AL Jadas or Al Jees in Jabeen (for women, did not start yet)
- 3 training was in management, production and operation of GH)
- Seedlings will then be marketed to farmers
- 2 horticulture nurseries selected in open areas located with easy access to asphalt road, good selection. Production did not start yet. Farmers welcomed the new GH
- 2 women associations involved: Beni Khawlain and Reem cooperative provide education.

- 2 nurseries created in Salafiya selected due to their links with more than one governorate (Hodeida, Sanaa, Marib and Ibb) and thus they can serve farmers in several of these governorates and they were visited by many farmers
- There will be production of tomato and cucumber according to market demand and if other demands exist they will be considered. These nurseries are used by farmers to produce seedlings from seeds brought in by each farmer and for a price that has been set according to each area.
- This work was the first activity in Raymah and was appreciated by the technicians and the farmers and involved the local authorities which are asking for its expansion to the whole governorate
- We make an agreement with the farmer that his field is open for the extension service to use for the training of farmers
- Farmers and in various villages (Ozel) were trained in GH and nurseries including large farmers from other districts
- We requested information for the office and got it
- One GH produced 8000 kilos of cucumbers in one season

Thuraya association:

- We started working with CLP in 2011 with the home garden intervention targeting 12 governorates with participation from the association of sustainable agriculture and the MAI
- Home gardens (150) and chickens (155) implemented in Hodeida, Ibb and Dhamar and in Thula (Amran) for 120 HG and 70 families receiving chickens.
- Training over a 7 day period for each governorate with trainers of high caliber from General Research commission and university
- One book on HG was printed and distributed in Thula
- Used newspapers to inform about seedling distribution in 6 areas (Sanaa, Ibb, Lahj, Taiz, Raymah and Dhamar) 2700 to each region, brought from nurseries in the area belonging to private and to government (Ibb) (types: Dawairi, Tufahi, and Udaini)
- The best coffee nursery in the Arab region is a government one in Ibb

Dhamar:

- The working approach and quality were good
- CLP focused on nurseries, for coffee and horticulture, on modern Irrigation. These became models for farmers and had an impact in convincing them and causing them to request these for themselves.
- CLP intervened in the total absoluta campaign to save this year's crop and had a clear impact as the market price for tomatoes stayed stable.
- Training in food processing targeted 50 families
- Project was for a short period but had significant impact
- 2 GH for vegetables in Jahran (M/F)
- Coffee nursery in Jabal al Sharq with irrigation and solar power
- Training in Jabal Al Sharq benefiting 150 farmers in 3 ws, management of GH, and drip irrigation
- One farmer's day on coffee production and irrigation
- Training in food processing for 50 families
- There is a large demand for use of solar power,
- One pump was installed to link the water tank with the drip system
- Green houses were started in 2012 in Jahran, 30 of them, all owned by one farmer, before CLP.

- Other government projects created green houses in various places but were limited (funds from the project of water and land conservation).
- The number of greenhouses increased after CLP, after showing how the GH tomato crops in the winter produced large profits, and after providing demonstration and training, the farmers became convinced of the value of GHs.
- The difference is when CLP built one it was shown to other farmers and used for demonstration then investors brought money and partnered with farmers so now there are more than 86 GH built by private farmers in Jahran alone and around 140 in the whole governorate.

Sanaa governorate:

- New director (9 months)
- Most important accomplishment was the GHs because they produce more and consume less water
- and the solar power especially in light of the increase in oil costs
- We noticed new tangible things being done
- Some things were done without our participation
- Training was provided
- Honey: 30 beekeepers trained in 15 days on honey production. The project was supposed to help form an association, provide machines for sorting (Farrazet), and distribute beehives because the production from the local beehives was weak but this did not happen. (CLP had stated that they decided not to distribute since the local beehives were better that what they would bring from elsewhere)
- There are 2 vegetable nurseries (Sanhan and Jaliyah) a greenhouse in Hamdan and a 1Ha irrigation network in Manakha established but not via the Ag office, they are from the directorate of plant production of MAI.
- For Sanaa and Sanaa capital there appears to be an issue of communication and coordination within the ministry. Because of proximity the ministry tends to intervene in these two areas directly and work with projects without involving their own local offices except superficially.

Sanaa City

- Was not involved in any CLP activity, attended a workshop on greenhouses two years ago, there are CLP activities in the capital but the Ag office was not involved. MAI likely handles matters in the Sanaa city directly without involving the ag office.

Marib

- The best activity yet is this meeting and the fact that the USAID is evaluating its performance in the governorates
- We have a full report on Marib CLP activities (copy in hand)
- Farmers have welcomed CLP intervention with great interest
- We have received several requests for introducing solar power
- 3 grants targeting 6 districts
- 2 trainings for 25 extension workers each and the upgrading of 45 extension workers in communicating with farmers and how to run extension programs
- 2 training in food processing for 40 beneficiaries
- Office furniture and equipment
- Survey of poverty
- Distribution of egg producing chicken to 125 families (10 each)
- CLP targeted a given area only needed to extend further to reach poorer families and lot more marginalized people.

- CLP cleaned Marib Dam canals in three phases: 27 then 20 then 18 kms, out of a total of 137 kms of canals. (see report for land served and number of workers benefiting. Cleaning covered 2 out of 5 canals (map on Google)
- Ag office rotated workers' teams in and out of work every week so that more can be employed.
- Bees: bees were not distributed, although training was done
- Need support for establishing a modern irrigation network.
- Farmers are more and more aware of the need to modernize the irrigation and are asking us to provide that. No solar power projects in the governorate yet.
- The benefit of the cleaning of the canal was such that community members who previously did not allow us to work in their area on cleaning the canal are now convinced of its usefulness and want it done.
- Women activities: food processing in 3 districts (Wadi, Madina and Juba).
- Women participated in the poverty survey
- Women helped in distributing leaflets of the extension office
- The home gardens and chickens were well received, 250 families benefited.
- After CLP the fund for ag and fish promotion supported 8 home gardens in 2012-2013

Reasons for success:

- Citizen participation
- Seeing tangible results
- Having identified precisely what the governorate needs were
- Selection of the poorest families
- Dhamar: CLP Ag project worked better than 2 other projects because it used a good mechanism through the governorate authorities
- Ability to respond to needs
- Providing training
- Selecting farmers who were interested and in good locations
- Role of the CLP coordinator was positive
- Theoretical training was also accompanied by hands on practical application
- The participation of local authorities on decision making
- Several frequent monitoring visits from technicians and engineers
- Involving women was positive
- Introducing new modern practices that were needed by the farmers
- In Dhamar one farmer who attended a GH training in Sanaa returned and started 30 greenhouse himself!
- The project results were visible in short periods 2 to 3 months
- There is credibility established when people see results themselves
- Participation of local associations
- The selection criteria were clear and transparent
- Reestablishing the trust between farmer and extension service agents

Negative aspects:

- Lack of direct cooperation with the Ag office in some cases
- Distribution of benefits to people who are less needy than others who are not included
- Targeting limited areas
- Conditions for selecting sites for GH and nurseries favor rich farmers as they are more likely to have their land close to a main road, and have water
- As a result of the good results more demands and pressure on the MAI office to provide support to more farmers

- Free distribution to communities is wrong, beneficiaries should contribute to the project costs
- Trainers were always brought in from Sanaa especially instead of using the relevant governorate resources.
- Stopping short of delivering promised items such as for honey production creates lack of credibility
- In the livestock new practices CLP could not provide the expensive machinery needed because the grants were not sufficient for important investments, so they provided cheaper items like feeding troughs but could not provide machines to cut the feed and pack it into bales so we could not be trained on using them
- Project period was very short and activities restricted to only limited areas and targets. In Dhamar we did not have home gardens or chickens
- Food processing training (3 sessions) for 50 women was like an experiment in 2013
- Marib activities stopped a year ago

To what extent has CLP contributed to building the capacity of extension agents and government officials to support farmers?

Did the extension workers at your office participate in CLP field activities?

- Yes in all cases

What is the status of agriculture extension services in the governorates in which CLP strengthened extension services.

- Better now than before CLP. Without CLP no training would have been available.
- Some governorate offices received new buildings as well as office furniture and equipment (Amran and Marib)
- Raymah requested / was promised same support but did not get it
- Role of women is neglected within the extension service

What was missing from the support to extension services?

- More of the same training
- Documentation and materials
- For Raymah: an office
- Selection of trainees: CLP says Ag office can propose 10 out of 20 participants in a given training, the rest are selected by CLP.
- No media involvement
- Short training periods (2 days) do not allow us to have practical training

CLP implemented activities targeting the following sectors: Coffee, horticulture, honey. CLP interventions also supported the following activities : establishing home gardens; livestock vaccination campaigns against PPR and Sheep Pox; campaign against Tuta absoluta; and on-farm food processing. Within each sector and for each activity, CLP introduced new technologies and practices. ***What has been the impact of these CLP interventions on agriculture productivity and livelihoods of beneficiary farmers in your governorates?***

- All participants stated that these new practices were well received and most were not known to farmers
- The use of seedlings has spread rapidly and farmers use thousands of these

- Use of modern irrigation
  - Solar energy

- Farmers knew little about greenhouses before CLP and now know their importance
- There is a change in quality, reduction in costs and increase in production
- All participants agree that the new practices have a positive impact on productivity
- There is an absence of marketing policy or system post-harvest, in some seasons a basket of produce is sold for 4000 YR and at other times for 200YR.
- In Marib because of the heat there is a need for refrigeration of produce
- Farmers can for example acquire feeding troughs on their own (CLP provided 80 of them free) but they cannot afford irrigation systems and only rich farmers can. Rich farmers were able to use spraying motors
- Suggest encouraging local communities participation through establishing associations. Building water harvesting tanks is expensive but if materials were provided the labor could be provided from the farmers.

How did CLP hand over grants and their related activities when they ended to the beneficiaries and communities to the appropriate entities?

There is no specific clause to handle the assets if the associations fail

MAI has a role in follow up and ensuring sustainability and continuation

Prompt 6. (Efficiency/Coordination with other Development Partners): How well did CLP interventions take into consideration the interventions of other Development Agencies and the current agricultural strategy of MAI?

Probe 1: *In addition to CLP were there other agricultural projects being implemented in your governorate?*

Probe 2: *How well did CLP interventions complement the interventions that were being implemented by other agricultural projects?*

Probe 3: *How well did CLP interventions address the priorities established in the current agricultural strategy of MAI?*

- CLP is the only project that coordinates with the Ag offices, no other donor project does that.

Prompt 7: Do you know of any international or national projects that have adopted or are planning to adopt any of CLP-promoted technologies or practices?

Probe 1: *Which international or national projects operating in your governorate have adopted or are planning to adopt which technologies or practices?*

Probe 2: *(for Directors): In your governorate-level annual work plans, are you including or are you planning to include any of the CLP-promoted technologies or practices?*

No information

Prompt 8. (Gender) What has been the impact of CLP interventions on gender roles in the targeted communities?

Probe 1*: How responsive has CLP been to the needs of both women and men? Explain.*

Drill 1: How adequately did CLP consider gender roles in planning their activities?

Drill 2: Could gender roles have been more effectively taken into account? If so, how? How would that have resulted in a better impact on the livelihoods of beneficiaries?

Probe 2: *How have CLP interventions affected the work load of men, women and children at the farm*

level?

Drill 1: Have there been any consequences, either positive or negative, on men, women or children on the change in work load resulting from CLP interventions?

- All participants said participation of women was limited compared to the large amount of work they do day to day in farming. Women in Yemeni society do not play a primary role in decision making and all women in the group expressed their frustration that the CLP interventions targeting women were limited.
- CLP did not involve the directors of women rural development in planning, or identifying needs and did not employ women as coordinators

Prompt 9: (Sustainability) How sustainable are the results of CLP interventions?

Probe 1: *Which CLP results are most likely to be sustainable (e.g., production capacity, market access, policy, extension capacity) and why?*

Probe 2: *Are the outcomes related to adoption of better practices sustainable, example: are the participants likely to continue after CLP program ends?*

Probe 3: *Which outcomes are likely to be sustainable, and why?*

Probe 4: *Which outcomes are likely to be unsustainable, and why?*

Probe 5: *What could have been done to increase the sustainability of CLP outcomes?*

- Extension service directorates are likely to ensure continuity and sustainability as long as they are involved in planning and implementing a CLP activity.
- Activities that generate profits are likely to continue.
- Increasing training for extension service agents is likely to build capacity and ensure sustainability
- Assigning a coordinator within each extension service center to follow up on CLP activities can ensure sustainability
- Home gardens were abandoned in many areas when the CLP project stopped supporting families with seeds. On the other hand if the farmers and families were really convinced and needed the gardens they would have continued them.
- Many of the Yemeni people like to keep themselves eligible for further assistance from new projects so they try not to show that they have become self sufficient. "Success in becoming sustainable will deprive me of future assistance".
- Fixed assets are visible gains and will be sustained
- Growing vegetable crops may not be as sustainable in home gardens as growing fruits such as guava, especially when vegetables can be purchased in the market at low cost. It is a matter of attitude among beneficiaries, they like to continue to receive free aid.
- For home gardens, the cultural aspect has a bigger role than the commercial or profit motive, people who like working in the garden, like to spend time and enjoy free time in their gardens will continue the practice
- Sustainability is a result of the adoption and the continuation of the citizen's need for the activity because it is in their interest
- We need training before and after to reinforce acquired skills
- Adoption plus the farmers' participation and the need of the community as a whole for the activity
- Sustainability depends on how far we have disseminated the idea or practice in our area and whether we have included it in our Ag office work plan and decided to monitor and evaluate it.

- Home gardens are not costly, even irrigation systems (drip) are not costly (100YR) but others have argued about the cost being higher.
- Greenhouses, nurseries and coffee plantations will continue, that means anything that has the capacity to produce a profit.
- Beehives produce a good income and will impact livelihood.
- Availability of water will dictate what continues and what will not.
- Training is key to teaching farmers how to learn and continue using new technologies
- Water harvesting systems are expensive, we do not expect people to build that on their own
- For food processing, if it is for household use people will continue doing it but we do not expect it to be continued as a commercial venture, where is the market for these?

Prompt 10: In general, how satisfied are you with the CLP Project and why?

- See responses above.
- participants were unanimous in being satisfied with the CLP activities and results but in the same breath they mention that it is limited in coverage and time and creates more demand that is not satisfied, thus causes more people to be frustrated than the number who have benefited.

Prompt 11: What are the lessons that we might learn from CLP project?

- As a result of building the center and its capacity (furniture and equipment), CLP has restored the relationship between farmers and extension services (Farmers have a respectable location and staff to go to for help)
- New skills acquired
- Abandoning old and ineffective practices and acquiring new practices
- People found work in the greenhouses in addition to their high income and their lower use of water.
- Harvesting rooftop water has provided households with water for up to 6 months
- Food processing skills can improve family income and learning new practices including seeding and spacing plants
- Making means available helped us implement activities, now that CLP has stopped there will be a stoppage and we need to assess what was accomplished.
- Good coordination leads to good implementation along with providing a complete package for each intervention
- Acquiring new skills
- We learned how to maintain contacts with the farmers and identify their needs and problems
- Community participation and involvement of the Ag office along with encouraging farmers and citizens so that people can do things for their community.
- Marib: We were able to influence a society that has strong traditions, such as negative attitudes towards manual labor, and employment of women. We noticed a change in attitudes and acceptance of new ideas such as women employment.
- CLP activities contributed to reduce employment
- Acquired new skill in fattening of sheep
- Learned about home gardens
- Reactivating extension service centers that used to be closed and opening of 3 or 4 new ones
- No project will succeed unless it encourages women participation

Prompt 12: What are your recommendations for future agricultural projects to increase the resilience of rural communities?

Probe 1: *What should the priorities of future projects be?*

Probe 2: *What design or operational elements should be included in future agricultural projects to help ensure effectiveness at achieving the goal of increasing resilience of rural communities?*

- Our problems / needs are as follows:
  - Identify water sources/ water availability
  - Modern irrigation practices and systems
  - Alternative permanent energy sources
  - Continued awareness
  - Utilizing new technologies

Making these elements a priority along with building on the results of CLP to complete them and maintain them will ensure success for the new Ag project.

- Also continue to coordinate with the MAI
- Our farmers produce good products but do not know how to market them
- The Ag office in Sanaa capital (Al Amana) was created in 2001 with the support of farmers but the CLP project remained distant from it.
- Future projects should include stopping the advancing sands (Marib)
- Future projects should include attention to water and fertilizers
- Consider using biogas as energy source (Marib) especially that we are focusing on developing livestock
- To clean up more of the canals in Marib, there can be a mechanism where farmers provide all the labor to dig out the sand but would need the project to provide the cement as it is difficult for them to pay for it.
- In Sanaa governorate and Al Amana, farmers use untreated sewer water to irrigate vegetable gardens in Beni Hareth and Arhab, so we have to find a solution to this health risk. Amran farmers have similar practices.
- Water from wells of 20 to 30 m depth also needs to be treated
- In future projects we need to treat each governorate according to its specific characteristics
- Focus on income generating crops like almonds, coffee etc.
- Sanaa Ag office has a strong extension service capacity but needs equipment.

Annex 6: Comparison of Financial Efficiency on Household Vegetable Production Grants

Comparison of Financial Efficiency on Household Vegetable Production Grants

Grants Implemented by CSOs			
Grant Number	Disbursed US$	Budget US$	Disbursed/ Budget
AGAMR002	99,624	99,957	100%
CADN015	98,180	99,655	99%
CAMR019	76,535	99,998	77%
CYEM043	99,868	99,956	100%
CYEM044	93,940	99,655	94%
CYEM045	99,035	99,655	99%
CYEM046	99,938	99,655	100%
CYEM062	102,000	99,956	102%
TOTAL	769,120	798,487	96%

Grants Implemented by CLP through MAI			
Grant Number	Disbursed US$	Budget US$	Disbursed/ Budget
CDHL004	60,739	99,995	61%
CJWF021	68,460	99,998	68%
CLHJ017	59,226	99,995	59%
CMRB043	58,825	99,998	59%
CSBW025	62,289	99,998	62%
Totals	309,539	499,984	62%

Annex 7: list of persons interviewed

List of contacts and interviewed key persons

Name	Function	Organization
Mohammed Ilyas	Agriculture Team Leader	CLP/Yemen
Mohsen Al-Hubaishi	Deputy Agriculture Specialist	CLP/Yemen
Abdul Gabbar Al-Kirshi	Manager	Al-Thuraya, Sana'a
Taha Al Nahria	Horticulture (with CLP	CLP
Muhsin Kassim Al-Hubeishi	Agriculture Coordinator	CLP
Abdul Karim	Water Specialist	CLP
Mohamed Ghashem	deputy Minister	Ministry of Agriculture and Irrigation
Abdullah Al-Baidhani		CLP
Mosab Al-Masabi		CLP
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Annex 8. Key documents consulted

Final_CLP AG_Evaluation SOW_06-05-2014 (1)
OTI Yemen, Strategy Review Session, Jan 2011
YASP final report
Yemen_National-Agriculture-Strategy_2012-2016-Highlighted
CLP Agriculture Program Achievements
APEX_ CLP Food Security Program (CLP II) (Final) 3 December-2012for Ed- revPF Ed
CLP Mid-Term Evaluation Final - April 25 2012 (1)
CLP Agriculture and Water Vision Paper_4 10 11_Final
CLP Staff by date of hire and position, Jan 2012
Copy of CLP Beneficiary Data - June 30 2013
Community Livelihoods Project - Indicators at a Glance (March 2013)

Clearinghouse Reports: (USAID/YMEP CH
CLP Agriculture Program Disbursements by Activity and Governorate
CLP Agriculture Program Disbursements by Governorate
CLP Agricultural Activities-Planned and Disbursed Amounts by Activity
CLP Agriculture Program Number of Activities by Governorate
CLP Agriculture Activities Implemented in 5 Selected Governorates
CLP - Final RFA - 19Jan10
CLP Award CA-10-00032
CLP Annual Review, Oct 4 2011
CLP Grant Process Forms Required, Nov 2011
CLP FY2011 Grants Impact Assessment Report Final Draft, April 2012
CLP M&E Bi-Weekly Report, Jan 24 2012
CLP M&E Training Objectives & Agenda, Dec 17-19 2011
CLP Staff by date of hire and position, Jan 2012
CLP Org Chart-Program (Sana'a) May 2011
CLP Agricultural Activities as of June 7, 2014
CLP Agricultural Activities- Disbursed Amount by Governorate
CLP Agricultural Activities-Planned and Disbursed Amounts by Activity

Quarterly and Annual Reports:
CLP Annual and Quarterly Report to june 2013
CLP Annual Report 2010-2011_8 30 11
CLP Annual Report 2011-2012(1) Copy
CLP Quarterly Report , July-Sept 2012
CLP Quarterly Report Jan-Mar 2013
CLP Quarterly Report Oct- Dec 2011
CLP Quarterly Report Oct-Dec 2012
CLP Quarterly Report, April - June 2012
CLP Quarterly Report, April-June 2011
CLP Quarterly Report, Jan-Mar 2012
CLP Quarterly Report, Jan-March 2011
CLP Quarterly Report, July - Sept 2011
CLP Quarterly Report, July-Sept 2010
CLP Quarterly Report, Oct-Dec 2010
CLP Quarterly Report July-September 2013
CLP Quarterly Report Oct-Dec 2013
CLP Quarterly Report Jan-Mar 2014 FINAL
CLP Annual and Quarterly Report 2013

CLP Agriculture and Water Vision Paper_4 10 11_Final

CLP Weekly Reports- 2010-2014

CLP M&E Guidelines 2011-11-12
CLP Agriculture Sector Fact Sheet (1)
Annex 1b_CLP Work Plan_(Excel)_Oct 2012 to June 2013
CLP Coffee demo sites and Male Female Nurseries2
CLP sites Horticulture-final

YMEP TPM Reports on CLP Agriculture sector:
Final Report - YMEP- EC Monitoring of CLP-DIAGSAN001-Rainwater Harvesting System-Ruqayah School
Final Report YMEP Environmental Compliance Monitoring of CLP Grant DIAGSAN001-Rainwater Harvesting System-Imam Al-Shafe'e School
Final YMEP Report- CLP # DIAGMRB003-Cleaning Marib Canals for Intensive Work in Marib
Final YMEP TPM Report - CLP- DIAGSAN001 Piloting Rooftop Rainwater Harvesting for School Gardening in Sanaa- Al-Shafea School
YMEP- EC Monitoring of CLP-DIAGSAN001-Rainwater Harvesting System-Ruqayah School
YMEP Environmental Compliance Monitoring of CLP Grant DIAGSAN001-Rainwater Harvesting System-Imam Al-Shafe'e School
YMEP Monitoring Report for CLP grant- AGAMR005, Rehabilitation of Thula Water Supply
YMEP Monitoring Report for CLP grant, AGAMR003 Building Trust Between Farmers and MAI in Thula
YMEP TMP Report for CLPCLHJ018, CDHL005-Capacity Building for Beekeeping Improvement in Lahj and Al Dhale'e-1
YMEP TPM Follow-Up Report-CLP grants CADN055, CLHJ017 and CDHL004-Issues Related to Poultry Production
YMEP Monitoring Report of CLP grant, AGAMR004-Silver Water Project in Thula, July 23 2012
YMEP Monitoring Report-CLP-AGSAN003-Demonstration of Solar-Powered Greenhouse in Sana'a
YMEP Monitoring Report-CLP-AGSAN003-Demonstration of Solar-Powered Greenhouse in Sana'a (2)

YMEP Monitoring Report-DIAGSAN001- Harvesting Rooftop Rainwater for School Gardening-Al-Shafea School in Sanaa-
YMEP Report- CLP # DIAGMRB003-Cleaning Marib Canals for Intensive Work in Marib
YMEP TPM Report - CLP- DIAGSAN001 Piloting Rooftop Rainwater Harvesting for School Gardening in Sanaa- Al-Shafea School
YMEP Monitoring Report-CLP-AGSAN003-Demonstration of Solar-Powered Greenhouse in Sana'a
YMEP Monitoring Report of CYEM043 Household Vegetable Production for Food Security and Income Generation
YMEP Monitoring Report of CLP-CLHJ018-Establishing a State of the Art Honey Value Chain for Private Sector, June 17 2012
YMEP Monitoring Report of CLP grant, DIAGSAN002 Harvesting Rooftop Rainwater for School Gardening in Sana'a
YMEP Monitoring Report of CLP grant, AGAMR004-Silver Water Project in Thula, July 23 2012
YMEP Monitoring Report of CLP grant CYEM018 Capacity Building in Prevention of PPR and Sheep Pox-Hodeida
YMEP Monitoring Report of CLP grant - AGSAN002 Rooftop Rainwater Harvesting for School Gardening, Ma'een School in Sanaa, July 11 2012
YMEP Monitoring Report for CLP grant, AGAMR003 Building Trust between Farmers and MAI in Thula
YMEP Follow Up Monitoring Report for CLP grant, AGAMR002 Home Gardening Poultry Production for Food Security and Income Generation
YMEP Follow up Monitoring Report of CLP grant - AGAMR003 Building Trust between Farmers and Ministry of Agriculture and Irrigation
YMEP Monitoring Report for CLP grant DIAGSAN001 - Piloting Rooftop Water Harvesting for School Gardening in Sana'a (1)
YMEP Monitoring Report for CLP grant DIAGSAN001 - Piloting Rooftop Water Harvesting for School Gardening in Sana'a
AGAMR0020001 Home gardening Thula
AGAMR0030001 Building Trust between MAI and farmers- Thula 2011
AGSAN0030001 demonstration of solar powered greenhouse in Sanaa
AGAMR0050001 Rehabilitation of Thula water supply
CLHJ0180001 Establishing Honey chain Lahj governorate
CYEN0190001 prevention of PPR (Taiz)

<u>CLP Work Plans:</u>
1_A Y1 Annual CLP Narrative Work Plan Yr. 2 July 2010 - June 2011
Annex 1b_CLP Work Plan_(Excel)_Oct 2012 to June 2013
Annex I CLP Year 2 Annual Workplan
CLP Narrative Workplan Yr 2
CLP Narrative Workplan Yr 2
CLP Narrative Workplan Yr 2, Oct 2011
CLP Quarterly Workplan Aug 2011-Oct 2011
CLP Quarterly Workplan Aug-Oct 2011
CLP Quarterly Workplan_May 2011-July_2011
CLP Y1 Workplan by Sector, Nov 2010 Final
CLP Y2 Workplan Annex - timeline, Oct 2011
CLP_Year_1_Workplan_DRAFT_by component
Copy of CLP Y-4 Annual Work Plan_ 24Jan2014 (1)
Mission Director Comments on CLP Workplan, Oct 15 2011
Narrative_Work Plan_1Jan_to_30June2013_updated_Jan2013
REVISED Y-4 Annual CLP Work Plan Narrative 24Jan2014 (2)

Workplan and Program Integration documents
Y2 CLP Annual Workplan July 2011 - June 2012

DQA reports and other USAID reports
RIG Risk Assessment of USAID Yemen, March 2011 FINAL REPORT
USAID Yemen 2010-2012 Strategy
Yemen FY 2011 - Full Performance Plan Report (confidential)
YMEP Assessments Report Inventory, PPR, Dec 2011
USAID DQA Tool for Program Level Indicators
Final Yemen DQA Report for PPR 2011, Jan 9 2012
Yemen DQA Report for PPR 2011, final Dec 31 2011
USAID Yemen indicators for 2012-PPR-all IPs-indicators for DQA or review-noted
USAID Yemen PPR Report, Dec 2012
Yemen Indicators from 2012 PPR with IPs responsible, Dec 2012
Yemen Indicators per Nov 6 2012, YMEP input in yellow
Yemen Indicators per Sept 18, 2012-annotated by YMEP for 2012 DQA, Oct 23 2012
YMEP DQA for 2012 USAID PPR, revised Nov 17 2012
YMEP Supplemental DQA for 2012 USAID PPR, Nov 28 2012
Final Yemen DQA Report for PPR 2011, Jan 9 2012
YMEP DQA - Dec 16 2013 (3)
YMEP DQA for 2012 USAID PPR, Nov 10 2012
YMEP Supplemental DQA for 2012 USAID PPR, Nov 28 2012
Agriculture Training Database - August 2013 to March 2014
CLP Annual Review, Oct 4 2011
RIG CLP Audit 2013
Evaluation Registry Data Collection Template, CLP Evaluation
Mid Year 2012 DQA Follow up of FY2011 PPR DQA Findings and Recommendations with CLP, July 11 2012

PMPs and PMEPs:
CLP ME Plan (revised) DRAFT 2012-04-01 RG
CLP ME Plan 2012 revised DRAFT 2, May 12 2012
CLP ME Plan 2012 revised DRAFT with YMEP comments
CLP PERFORMANCE DATA TABLE FY2011 revised Dec 10 2011
CLP PMEP_Final Clean Version_30 Jan 2014
CLP PMP - Revised 06 13 2013 (2) (2)
CLP PMP &PIRS 2012 revised 2012-05-30
CLP PMP Final April 2011
CLP PMP revised 2012-05-30
CLP PMP, May 28 2012
CLP Revised PMP - March 2013 03.26.2013

Annex 9. Evaluation timetable and work plan

Phase	Task Description	June																													July																							
		S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
		8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Prepare	1. Contract Team Leader							x	x	x	x	x	x		x	x	x	x	x	x																																						
	2. Contract Local Consultants							x	x	x	x	x	x																																												
	3. Kick-off meeting with CLP and USAID	x																																																					
	4. Collect and review documents		x	x	x	x		x	x	x	x	x	x		x	x	x	x	x	x		x	x	x	x	x																														
	5. Draft key evaluation questions, methodological approaches for evaluation								x	x	x																																													
	6. Draft and submit workplan to USAID										x																																											
Travel	7. Team Leader Travels to Sana'a																												x	x																										
Implement	**a) Farmer Focus Groups**																																																						
	8. Prepare Farmer Focus Group Discussion Guide and Structured Questionnaire for Farmers							x	x	x	x	x	x																																												
	9. Arrange logistics for Farmer Focus Groups							x	x	x	x	x	x																																												
	10. Undertake Farmer Focus Groups; Apply Structured Questionnaire for Farmers													x	x	x	x	x	x	x																																				
	11. Write-up Farmer Focus Group Discussion Reports																								x	x			x	x	x	x	x	x		x	x	x																	
	12. Analyze Farmer Structured Questionnaire																								x	x			x	x	x																								
	b) MOE Focus Groups; Farm and Rural Women Association Focus Group																																																						
	13. Prepare Focus Group Discussion Guide and Structured Questionnaire																														x	x	x																							
	14. Arrange logistics for Focus Groups																																			x	x	x	x	x	x		x	x	x	x	x	x						
	15. Undertake Focus Groups; Apply Structured Questionnaire																																																					
	16. Write-up Focus Group reports																																																						
	c) Key Informant Interviews																																																					
	17. Prepare KI Interview Guides													x	x																x	x	x	x																				
	18. Conduct KI interviews with CLP; prepare report															x	x	x	x	x			x	x	x																														
	19. Conduct KI interviews with senior MOA officials																																			x	x	x	x	x	x		x	x	x	x	x	x						
	20. Conduct KI interviews with development partners																																			x	x	x	x	x	x		x	x	x	x	x	x						
	21. Conduct KI inteviews with USAID																																																					

Phase	Task Description	June																													July																							
		S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T
		8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Travel	22. Team Leader returns to USA																																																						
Report Writing	23. Draft report writing																					x	x	x							x	x	x	x		x	x	x														x	x	x	x	x	x
	24. Present preliminary draft report findings to USAID																																																					
	25. Submission of draft report to IBTCI for internal review																																																					
	26. Internal review of draft report by IBTCI																																																					
	27. Submit draft report by USAID																																																					
	28. Review of draft report by USAID																																																					
	29. Prepare final report																																																					
	30. Submit final report to USAID																																																					

		August																														September																									
		F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F
Phase	Task Description	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
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	15. Undertake Focus Groups; Apply Structured Questionnaire					x	x	x																																																		
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	24. Present preliminary draft report findings to USAID											x																																														
	25. Submission of draft report to IBTCI for internal review																										x																															
	26. Internal review of draft report by IBTCI																											x	x	x			x	x	x	x																						
	27. Submit draft report by USAID																																				x																					
	28. Review of draft report by USAID																																						x	x	x	x	x															
	29. Prepare final report																																												x	x	x	x	x									
	30. Submit final report to USAID																																																	x								