

PEPFAR Ethiopia In-Country Reporting System (IRS)  
Reporting Template

Development Alternatives Inc. (DAI)  
ANNUAL PROGRESS REPORT FOR

FY2011

ANNUAL PROGRAM RESULTS  
(OCT 2010 - SEP 2011)

CONTACT INFO FOR THIS REPORT:

Tsige Teferi, Chief of Party,  
+251911443393

## LIST OF ACRONYMS

AEO	Assistant Extension Officer
AIDS	Acquired Immunodeficiency Syndrome
CC	Cluster Coordinator
CM	Community Mobilizer
COP	Chief of Party
COTR	Contracting Officer's Technical Representative
CVDA	Common Vision Development Association
DAI	Development Alternatives, Inc
DCOP	Deputy Chief of Party
DG	Discussion Group
EMMP	Environmental Management & Mitigation Plan
EO	Extension Officer
FGAE	Family Guidance Association Ethiopia
GD	Group Discussion
GO	Government Organization
GSLA	Group Saving and Loan
HDW	Hand-dug Well
HIV	Human Immunodeficiency Virus
ICEDA	Integrated Community Education and Development Association
IEE	Initial Environmental Examination
ILRI	International Livestock Research Institute
INGO	International Non-governmental Organization
IP	Implementing Partner
IYCN	Infant and Young Child Nutrition
JHU	Johns Hopkins University
M&E	Monitoring and Evaluation
NGO	Non-governmental Organization
OAC	Operational Area Coordinator
OVC	Orphans and Vulnerable Children
PEPFAR	The President's Emergency Plan for AIDS Relief
SWDA	Social Welfare Development Association
UGP	Urban Gardens Program
USAID	United States Agency for International Development

## TABLE OF CONTENTS

1.	Reporting Period .....	4
2.	Prime Partner .....	4
3.	Publications, Reports, Guidelines or Assessments .....	4
4.	Short-Term Technical Assistance .....	4
5.	International Travel .....	5
6.	Activity .....	5
7.	Accomplishments and Successes.....	6
	OVC Care and Support .....	6
	Technical Support for Gardens .....	8
	Integration of Health into Gardens .....	11
	Build the Capacity and Knowledge of IPs .....	12
	Build Income Generation Potential .....	14
	Ensuring Greater Sustainability for Gardeners.....	15
	Expand the Learning and Understanding of How Gardens Improve Health .....	16
8.	Challenges and Constraints .....	16
9.	Data Quality Issues .....	17
10.	Major Activities Planned .....	18
11.	Environmental Compliance.....	19
12.	Issues Requiring the Attention of CDC Ethiopia Management.....	22
13.	Data Sharing with Host Government .....	22
14.	Appendix: Summary Table of Additional M&E Indicators.....	24

<b>1. Reporting Period</b>	October 1, 2010 – September 30, 2011
----------------------------	--------------------------------------

**2. Prime Partner**

Name of the Prime Partner	DAI
Contact Person for this report (Name, Position/title, Telephone, Email)	Tsige Teferi, Chief of Party, +251911443393, <a href="mailto:tsige_teferi@dai.com">tsige_teferi@dai.com</a>

**3. Did your organization support the production of publications, reports, guidelines or assessments during the reporting period?**

No/Not Applicable   
 Yes  If yes, please list below:  
 Publications/Reports/Assessments/Curriculums

Title	Author	Date
Referral Guideline	Ketema Abebe	October 2010*
IEE Amendment	Goshu Worku	December 2010*
Weekly Garden Dialogue Tool	Technical Team	December 2010*
Success Stories	Nicholas Parkinson	January 2011*
Basic Business Skills	Adam Tekeste and WISE	February 2011*
Weekly Garden Dialogue Tool (Version Two)	Thomas Cole and Technical Team	March 2011*
Summer School Plan	Biniam Habtewold	June 1, 2011*
Second Version of Garden Dialogues in English and Amharic	USAID UGP Technical Team	April 28, 2011*
USAID UGP service directory	Ketema Abebe	August, 2011
USAID UGP baseline survey	FHI	August, 2011

\* Please see FY2011 Q1 and SAPR Reports for documents

**If Yes, Please attach an electronic copy of each document as part of your submission.**

**4. Did your organization utilize short-term technical assistance during the reporting period?**

No/Not Applicable   
 Yes  Please list below:

Consultants/TDYers

Name	Arrival	Departure	Organization	Type of Technical Assistance Provided
Kate Ogorzaly	10/02/10	12/18/10	DAI	Grant Management
Andrew Adam-Bradford	11/14/10	11/26/10	ECI	Urban Agricultural Policy*
Thomas Cole	12/04/10	12/18/10	ECI	Garden Dialogue Support*
Alyson Lipsky	12/06/10	12/15/10	DAI	M&E Support, Nutrition*
Colter Bell	12/13/10	12/14/10	DAI	IT Support
Nicholas Parkinson	11/15/10	01/31/11	Local / ECI	Publications Support**
Dr. Mandefro Nigussie	11/10/10	01/01/11	Local / ECI	Policy Workshop and Report*
Caesar Layton	03/14/11	04/01/11	DAI	Project Administration Support*
Alyson Lipsky	03/25/11	04/15/11	DAI	M&E and Nutrition Support*
Jon Blashford	03/20/11	04/08/11	DAI	Audit Support
Keith Hourihan	03/20/11	04/08/11	DAI	Audit Support
Nicholas Parkinson	4/26/11	6/15/11	ECI Africa	Publications Support
Thomas Cole	4/24/11	5/17/11	ECI Africa	Technical Training Support
Caesar Layton	4/27/11	5/4/11	DAI	Management Support
John McElwaine	5/19/11	6/26/11	DAI	Operational Support
Erik Bjers	7/2/11	7/7/11	DAI	IT Support

Rahel Belete	6/27/11	8/31/11	DAI	Human Resource Support
Hilary Langer	9/9/11	9/27/11	DAI	Grants Training
* Please see FY2011 Q1 and SAPR Reports for TA report				
** Please see publication, <i>Success Stories</i> as final TA deliverable				

**If Yes, Please attach an electronic copy of the TA report as part of your submission.**

**5. Did your organization support international travel during the reporting period?**

No/Not Applicable

Yes

Please list below:

International Travel (All international travel to conference, workshops, trainings, HQ or meetings).

Name	Destination	Departure from Ethiopia	Arrival	Host Organization	Purpose of the travel
Nancy Russell	Washington, DC	3/3/11	3/17/11	DAI	Present project to Global Health Council, USAID DC, and select members of U.S. Congress
Mulat Yiman	Uganda	1/9/11	1/13/11	DAI	Management Training
Abebaw Mehari	Uganda	1/9/11	1/13/11	DAI	Management Training
Elizabeth Workneh	Zambia	6/24/11	7/1/11	DAI	Financial Management Training
Nardos Fisseha	Zambia	6/24/11	7/1/11	DAI	Financial Management Training

**6. Activity**

Program Area (Tick all which apply)	Activity ID	Activity Title (Please write the title of the activity)
<input type="checkbox"/> 01-PMCT		
<input type="checkbox"/> 02-HVAB		
<input type="checkbox"/> 03-HVOP		
<input type="checkbox"/> 04-HMBL		
<input type="checkbox"/> 05-HMIN		
<input type="checkbox"/> 07-CIRC		
<input type="checkbox"/> 08-HBHC		
<input type="checkbox"/> 09-HTXS		
<input type="checkbox"/> 10-HVTB		
<input checked="" type="checkbox"/> 11-HKID		Care: OVC
<input type="checkbox"/> 12-HVCT		
<input type="checkbox"/> 13-PDTX		
<input type="checkbox"/> 14-PDCS		
<input type="checkbox"/> 15-HTXD		
<input type="checkbox"/> 16-HLAB		
<input type="checkbox"/> 17-HVSI		
<input type="checkbox"/> 18-OHSS		

## 7. Accomplishments and successes during the reporting period (REQUIRED)

Please write a narrative for each Program Area with explanations for under and over achievements

### I. OVC Care and Support

To date, US Agency for International Development's (USAID) Urban Gardens Program (UGP) has reached 69,167 orphans and vulnerable children (OVC); 11,672 are directly involved in gardening through the use of micro gardens (3,147) or directly at schools or other institutions (8,525). More than 57,495 OVC<sup>1</sup> are reached indirectly through support from 8,077 adult gardener / caretakers or 11,672 OVC gardeners. Further, USAID UGP has achieved the following predetermined targets for the President's Emergency Plan for AIDS Relief (PEPFAR): number of households participating in USAID UGP (annual result: 19,749); number of OVC served by OVC programs (annual result: 69,167); number of local organizations provided with technical assistance for HIV-related institutional capacity building (annual result: 51); number of individuals trained in HIV-related stigma and discrimination reduction (annual result: 5,853); and number of individuals trained in HIV-related community mobilization for prevention care and / or treatment (annual result: 5,853). USAID UGP has not met its annual target for number of providers / caregivers trained in caring for OVC because the majority of EOs have backgrounds in agriculture and therefore the EOs focus their efforts more on gardening than on caring for OVC. For targets and results of Key PEPFAR Indicators, please see Summary Table below. Additional indicators are located in the Appendix at the end of the report.

**Summary Table of Key PEPFAR Indicators**

Indicator	Year Three Target	Q1 Result	Q2 Result	Q3 Result	Annual Result	Variance
<b>Number of Households participating in USAID UGP</b>	15,334	16,052	20,093	20,042	19,749	+4,415
<b>Number of OVC Served by OVC programs, primarily or supplemental direct</b>	44,375	56,887	71,601	70,828	69,167	+24,792
<b>Number of providers / caregivers trained in caring for OVC</b>	12,150	1,495	3,780	3,735	4132	-8,018
<b>Number of local organizations provided with technical assistance for HIV-related institutional capacity building</b>	50	41	52	51	51	+1
<b>Number of individuals trained in HIV-related stigma and discrimination reduction</b>	743	1,867	4,606	5,092	5,853	+5,110

<sup>1</sup> The 57,495 count does not include OVC gardeners. The 57,495 OVC who are reached indirectly live with the 8,077 adult gardener / caretakers and 11,672 OVC gardeners.

<b>Number of individuals trained in HIV-related community mobilization for prevention care and / or treatment</b>	743	1,867	4,606	5,092	5,853	+5,110
---	-----	-------	-------	-------	-------	--------

Schools are among the major places where a number of OVC are located and are therefore the most important places to address their needs. The school committee has been involved in supporting OVC in various ways, such as organizing OVC in different clubs, following gardening activities, OVC savings and loan groups, OVC discussion groups, and educational support. However, there is a need to coordinate services that the school secures from different sources for children in school. It is also vital to improve the existing capacities of the school committee so that they better provide sustainable support for the children. To that end, the OVC specialist conducted field visits to Addis Ababa, Jimma, Weliso, Dessie and Kombolcha where extension officers (EOs), operation area coordinators (OACs) and community mobilizers (CMs) were coached on OVC issues. The cluster meetings conducted in Bahir Dar, Jimma and Hawassa were also used as a platform to introduce OVC service standards and strategies to better implement urban gardening in schools.

**Summer planning for schools**

As per the Ministry of Education schedule, all Ethiopian schools were closed for summer vacation, which began the last week of June. Thus, it was crucial to prepare a plan for the summer so that OVC could still operate their gardens when the schools were closed. USAID UGP and school committees worked to prepare ID cards for gardeners and / or notified school guards to allow access for OVC gardeners. USAID UGP also worked with OVC, EOs, OACs and school committees to develop a plan for the summer break for all schools implementing USAID UGP. The plan provided detailed information and guidance on how to work with gardeners, the gardening environment (how to make the garden safe for children, what to plant during the rainy season, erosion checking mechanisms, etc.), how to support OVC in group discussions and saving and loans. The plan was successful as gardeners were able to maintain access to their gardens over the summer holiday. Moreover, school focal persons have also showed their commitment by providing their continuous support during a time where they were supposed to take their summer vacation.

**Field Visits**

Field visits were conducted in different operational areas of the program and recommendations were made to address gaps identified in OVC support. The field visits not only provided an opportunity to discuss strategies of making school gardening activities in schools successful with OACs, EOs and CMs but also helped observe that children are benefiting from being a member of the group garden in that they have made friends who share ideas and discuss issues that school committee bother them. Technical assistance on forming committees at schools, how to communicate with vulnerable children, identifying the needs and addressing them to support the gardening program or utilizing various existing clubs was sustained throughout the year. Moreover, EOs and CMs were coached on understanding the needs of OVC and responding to their needs in a timely fashion.

During the field visits, discussions were held with implementing school principals on how to support OVC in schools. As a result of the discussion with principals and school focal persons, schools have formed committees and begun assessing other existing support to help OVC involved in gardening receive coordinated care.

OACs, EOs and CMs were also coached on how to make the school gardens child friendly and involve the school community. Wells have been covered for safety reasons, drip kits were covered to prevent evaporation and dirt falling into the container, which can clog the tubes, and erosion-checking procedures

are also safe.<sup>2</sup>

### **Orientation on OVC service standards and making gardening child friendly**

During the cluster meetings in Bahir Dar, Jimma and Hawassa, orientations for 50 EOs and 13 OACs were provided on:

- OVC service standards,
- making urban gardens child friendly, and
- school support strategies

As per the service standards, quality service provision has been discussed in detail with the participants. The orientation also included discussion on the eight core OVC service areas for Ethiopia, desired outcomes for each of the service areas, and essential actions for each service area. The difference between outcome and output indicators was discussed, and the importance of ensuring that quality, as well as quantity is captured in data collection efforts.

The orientation also emphasized the importance of garden safety, cleanliness, labor-related activities, and protection from abuse. Cases in the field were used to elaborate the discussion issues and to share experiences.

### **Grow bag Contest**

During the second quarter, on 14 Feb 2011, a contest called, “Innovation in Small Spaces” was initiated in schools in all USAID UGP operational areas. Gardens were planted in bags or in recycled containers (e.g., tires, shoes, buckets, etc.) to demonstrate how much produce can be grown in small areas with little water. The contest broadened the support for OVC in schools and decreased stigma among the school community by involving other children and the school staff. The contest had 3,910 OVC participants and 1,467 children who were not classified as OVC participants. School principals, teachers, guards and cleaners actively participated by being part of teams alongside OVC. There were 89 participating schools, with 877 teams of five people each. Each team was led by an OVC. Each participant received one grow bag to use in the contest, and an additional four bags to take home to replicate the gardening activity at home, making the number of grow bags distributed approximately 27,000. The grow bag contest culminated in an event on April 28, 2011, that was held both in Addis Ababa and around the country in 15 cities with more than 1,000 urban gardeners. The purpose of the event was to award the grow-bag contest group and school winners, as well as to provide an opportunity for gardeners to demonstrate food preparation, savings and loan activities, and sell their products. The event was also a means to publicize micro gardening. More than 1,000 gardeners, 1,500 invited guests, 300 principals and teachers, and 80 government officials planted their own micro garden guided by gardeners.

Information collected from schools that participated in the contest demonstrated that through their gardening activities, children were able to gain respect from their school community. School principals and teachers indicated that such children became more articulate and self-disciplined, and the contest became a platform to display this behavior. Children also showed their creativity through the use of growing materials amongst which included old shoes, purses, footballs, TVs, etc. Female school gardeners indicated that the contest in particular, and gardening in general, helped them realize they can also do other work and get recognition. In this way, they believe that gardening helped them enrich their sense of confidence. OACs also stated during lessons learned sessions of year four work planning sessions that OVC have been empowered since they took the leading role in the contest. During the work planning session, it was agreed that the micro garden contest will be conducted in 70 schools during the coming year.

## **2. Technical Support for Gardens**

### **Garden Establishment**

An additional ten implementing partners (IPs) in Amhara and Oromiya regions signed grant agreements, and completed initial deliverables over the course of the year, including:

<sup>2</sup> Erosion checking procedures include: cutoff drains, trace construction, cultivation against the slope, etc.

- conducting in-kind assessments and requests,
- recruiting technical staff,
- registering gardeners,
- securing land and water,
- preparing land,
- establishing nurseries, and
- completing stakeholder orientations.

Land has been secured for the IPs that were previously behind schedule, and communication with these IP heads has been strengthened.

A total of 27 HDWs will serve gardens Gondar, B/Dar, Finote selam & Debre Markos, Jimma, Wolisso, Modjo, Zeway and Hawassa. A total of 17 HDWs are already completed and are in operation. Ten HDWs are currently being constructed. Among the HDWs 20 are fitted with Afridev hand pumps and 7 of them are fitted with rope and washer pump. In-kind items such as 81 Robin water pumps, 10 Afridev hand and six electric pumps with its accessories, 100 water tanker (80Lit), 1270 water tanker (230Lit) and 111 water tanker (4000Lit) and 1,368 drip kits with accessories have been provided for those garden sites that require them.

#### **Roll-out of Weekly Garden Dialogues Tool**

The first edition of the Weekly Garden Dialogue Tool was developed and rolled out throughout all project sites early in the year. The tool provides the basis for a participatory approach adapted from the farmer field school methodology for ensuring sustainable improvement in gardeners' ability to critically analyze and assess their garden plots, and decide on action items for greater yield. Based on lessons learned from the first edition, a second version of the Weekly Garden Dialogue Tool was finalized (now called Urban Garden Dialogue Tool), and was launched on April 28 at the micro garden contest event in Addis Ababa. The tool has been translated to Amharic and distributed to IPs.

EOs have been using the Urban Garden Dialogue Tool regularly, and group discussions have been held with gardeners to improve the quality of gardens and solve emerging technical and operational problems such as pest, weed, fertility, animal encroachment, post harvest loss, etc. It is being well-received by the EOs and the AEOS, who value its potential to improve garden management and yield, as well as the ability to sustainably empower gardeners to find solutions on their own initiative in the future.

#### **Garden Management**

Nursery sites have been established and seedlings are being managed properly. Soil fertility management practices, such as animal manure, compost and green manure, have been undertaken in most groups and school gardens. Efforts to speed up land preparation, layout and transplant of seedlings have been implemented with some success. Most group gardens are using natural water sources; school gardens tend to use municipal water sources.

A monitoring tool was developed in collaboration with Thomas Cole, a consultant. The monitoring tool is now being tested by OACs. This tool will help OACs to assist EOs in determining where problems are in the field and to improve the skills of the gardeners. To see the monitoring tool, please see the FY2011 SAPR Oct-Mar.

OACs and CCs regularly monitored garden activities to identify gaps related to garden management and suggest possible solutions. A number of field visits were conducted over the course of the year to assess and address potential challenges in compliance, management and implementation. Participants included the COP, DCOP, other Addis Ababa-based technical staff, CCs, OACs, and EOs. Feedback is regularly provided to the respective OACs, IPs and EOs to enable them to take corrective measures.

IPs have taken efforts to improve soil fertility with manure, soil and water conservation measures, and pest reduction by planting various grasses such as rodens, vetiber and elephant, as well as Africa Merry Gold, reduce aphids by using ash, animal urine and soap, improve compost preparation, and other agronomic practices such as intercropping, and planting leguminous plants like beans, etc.

Nurseries were established for all cycle 2 IPs that began gardening activities, resulting in transplanting and

direct sawing in preparation for the rainy season. Gardeners planted maize and other varieties that are suitable for the rainy season. Preparation for the rainy season paid off as almost all gardens performed well throughout the season.

An inventory of fruit trees was conducted at Gondar and Kombolcha sites to assess their survival rate, which is more than 80 percent. During the reporting period, a total of 11,216 fruit tree seedlings were distributed and the majority of them were planted in school garden sites.

Poultry was distributed to 40 IPs. Each IP selected 90 gardeners to receive poultry. A total of 18,630 pullets and 2,970 cockerels were distributed to 3,600 gardeners with 1,710 quintals of chicken feed. Each gardener received six chickens and 50kg of chicken feed. There are an additional eight IPs that are awaiting chickens, which will increase the number of gardeners by 720.

#### **Land and Water Management**

USAID UGP secured 475<sup>3</sup> gardens land and water over the course of the year. Water quality tests have been conducted for 24 garden sites to identify sources of pollutants, any threats to human health, help to determine appropriate crops, and provide information on appropriate food preparation and consumption. Schools and IPs worked to construct water tanker stands and fences to improve productivity and protect gardens from animals.

Local contractors have completed construction of 17 HDW among the agreed 27 HDWs in various places to sustain gardens at schools and within communities. In these respect contract agreements were signed with USAID UGP for Gondar (2), B/Dar (3), Finote selam (2) & 7 D/Markos , Jimma (3), Wolisso (3), Modjo (1), Zeway (1) and Hawassa (5). The status of the construction of HDWs has been regularly monitored and reports are updated and submitted weekly. Seven of them are rope and washer and 20 of them are Afridev pumps. Digging continues in the remaining sites. Using the drip kit irrigation system has been reinforced in Desse and Kombolcha areas. IPs have tried to facilitate municipal water supply connections (e.g. Desse).

Five bore holes with 51 meter depth at Ziway, 39 & 47 meter depth at Hawassa, 56 meters depth at Sebeta and 73 meter depth at Wolisso were constructed by a skilled drilling company. The wells were installed with blind and screen casings and fitted with Afridev hand pumps, where in Wolisso the pump position was deeper to a depth of 45 meters, and in others to a minimum of 30 meters depth. All cares have been in place during and after construction and though there was a drilling failure at Hawassa, no any hazards or damages occurred. All the wells are functioning well in the gardens. The abandoned well (in Hawassa) is reworked and filled up.

A variety of pumps (hand, rope and washer, gasoline and electric) were distributed for use to the needy gardens for lifting water from the source to a storage/use area. These pumps are used to pump out water from wells, river and other sources and the water has been used for irrigation employing/applying the water through surface/ furrow and drip irrigation systems. Any safety issues in installation and operation & maintenance were circulated to the people working on the equipments.

A water expert was hired on a contractual basis for garden water supply and system assessment, and assessments have been conducted in 78 garden sites, appropriate water sources and conveyance mechanisms have been identified / suggested, costs estimated and technical specifications prepared for the next step.

USAID UGP has established a partnership with Corvallis, a city in California, which will work with the project to develop water construction schemes to support garden establishment in Gondar.

#### **Strengthen local government support**

Linkages between USAID UGP and local government offices continue to be strengthened, as shown through the continued government provision of more than 38 different parcels of land, water, and in

<sup>3</sup> The 475 gardens established include 252 individual gardens, 69 group gardens, 130 school gardens and 24 institutional gardens managed by gardeners.

some cases, electricity for cycle 2 grantees. Local government officials also participated in the micro-gardening contest, in field fairs and in bi-annual stakeholders' meetings. Participants came from a variety of local government offices including, city and kebele administrations, local agriculture, water and livestock offices, and all city mayors. During these events, government officials demonstrated appreciation for USAID UGP and often asked that similar activities be conducted for other city and community residents.

### 3. Integration of Health into Gardens

#### **Group discussions**

Integration of health into gardens is progressing well. Group discussions (GDs) are being implemented for both year II and III gardeners. Discussion groups (DGs) of year II gardeners have selected facilitators from their own group members. There are approximately 391 DGs that are currently meeting among the 421 DGs that were established during the reporting period. EOs provided orientations of GD facilitation skills to the facilitators so that they are able to conduct the GDs on their own generally on topics such as OVC care, HIV related issues, fencing, etc. Year III gardeners have been conducting their own GDs since they enrolled in the program. Practicing GDs at the beginning of the enrollment helps to ensure the gardeners are committed to their DGs and gardening.

Following the guidelines, CMs are very involved in GDs. Minutes are kept and challenges are solved based on the agreed decision of DG members. Notes from GDs indicate that group members' interest and participation is increasing as a result of the benefits they are receiving from the GDs. Fifteen GD facilitators/leaders of five DGs have had the opportunity to meet and share their own experiences, strengthening their ability to lead. This activity will continue with other DGs not only to share experiences but also to lay a base for sustainability. CMs and EOs are keeping good records of DG accomplishments through the supplied recording formats. Successful DGs contribute to high gardener commitment to planting vegetables and to continuing to garden after graduation.

GD approaches are being reviewed after more detailed information on gardener training needs was received from the baseline survey. To ensure nutrition and gender issues receive adequate attention during the group discussions, a new training guideline for DG facilitators is being developed with involvement from IYCN, FHI and OACs.

#### **Developing resources to strengthen referral system**

Referrals to and linkages with service providers continued throughout garden sites – 14,244 OVC were referred to support services and 11,371 referrals resulted in a support service being provided; 3,598 gardeners were referred to HIV/AIDS services and 3,165 of those referrals resulted in a HIV/AIDS service being provided.<sup>4</sup> To ensure gardeners received comprehensive services, IPs referred gardeners to services the IPs themselves provide, as well as services that other organizations provide. Referral to the IPs' own services is more common. Referrals to external services are primarily based on the developed service / resource map and established linkages with nearby service providers. CMs are leading efforts to establish referral linkages at the IP level.

The referral guideline was finalized in the first quarter of 2011. The guideline will help EOs / CMs to refer gardeners to their own IP services, as well as to other providers' services as needed. Site visits conducted since the guideline's distribution suggests that EOs and CMs are utilizing the referral guideline and recording mechanisms for tracking referrals (see above and appendix for tracking information). Please see the FY2011 Q1 Report to access the referral guideline.

Resource mapping is under way. EOs and CMs are working with gardener representatives to develop resource maps. They are expected to be available at operation area offices to enable improved follow up. OACs will prepare resource maps for the operational areas after receiving the more localized resource maps that the EOs, CMs and garden representatives have prepared. Currently about 286 service providers have been mapped out at ten cities where USAID UGP is operating. The mapped out service providers include, governmental organizations (GOs), non-governmental organizations (NGOs),

---

<sup>4</sup> A single OVC or gardener may receive multiple referrals to a variety of services.

international NGOs (INGOs), and associations. EOs and OACs have been working on establishing linkages with these service providers based on the priority services they have.

The service directory, containing 300 service providers, was finalized and has been distributed to all operational areas. The Amharic version is currently printing and will be distributed imminently. The Amharic version will be distributed to graduating gardeners so that they have access to the information after graduating from the program.

A one day consensus-building meeting was conducted with WFP technical staff. The objectives of the meeting were to ensure mutual understanding of USAID UGP and WFP Urban HIV Program implementation, to identify gaps and achieve agreed solutions, to share roles and responsibilities, and to set action points. Five WFP focal persons, the WFP Urban HIV program head, thirteen OACs and three CCs attended the meeting which was facilitated by the health integration officer. WFP and USAID UGP have agreed to hold bi-annual meetings. Through the partnership, USAID UGP and WFP hope to provide gardeners with different types of services, allowing gardeners to spend more time on their gardens, and learn about improved vegetable consumption.

**Assessing nutritional impact**

Over the course of the year, USAID UGP engaged Tufts University, the Infant and Young Child Nutrition Program (IYCN) and Johns Hopkins University (JHU) to assess the nutritional and other social impacts of the program. Tufts University has completed a participatory impact assessment and is currently writing up the findings. IYCN helped to revise the nutrition section of the USAID UGP baseline survey, analyzed the findings, and conducted a small research project on the eating and infant and young child feeding practices of a small group of gardeners. The findings are being used to refine the nutrition component of the Garden Dialogues. USAID UGP worked with JHU in Assosa with mother support groups based at a hospital.

**4. Build the Capacity and Knowledge of IPs**

**Garden capacity and knowledge**

EOs, AEOs, and CMs continue to participate in monthly and quarterly meetings. A formal poultry husbandry and health training of trainers (ToT) was conducted for two days for all operational areas. The Urban Garden Dialogue Tool was distributed to EOs, AEOs, and CMs. In addition, copies of the Urban Garden Dialogue Tool were distributed to key personnel, previous IPs and relevant USAID UGP stakeholders for better transfer of the required extension methodologies to all actors.

USAID UGP continued to provide guidance to IPs in gap analysis, garden management and follow up. School principals and public sector leaders were also included in these discussions that cover a variety of topics such as small and medium enterprises, urban agriculture, securing land, issuing business licenses, tax issues, and monitoring. EOs continue to share experiences in utilizing drip kits, quality assurance, savings and loan activities, and other relevant activities. All OACs and EOs participated in training on poultry management.

Technical support is being provided to IP technical staff in the form of garden supervision, the provision of feedback and continuous discussions. OACs conducted two-day Weekly Garden Dialogue training for six EOs and six AEOs in the North cluster area, including:

- o overview of program interventions and modalities,
- o Urban Garden Dialogue Tool,
- o Environmental Management and Mitigation Plan (EMMP),
- o savings and loan,
- o community mobilization,
- o referral linkages,
- o and reporting.

**Environmental Management**

Every garden must have an EMMP plan. For this purpose, the EOs who have been working on training gardeners, facilitating the preparation process and finalizing the preparation were trained on how to

prepare the plan.

The EOs and AEOs were also trained on how to select land and water options for the gardening activity. The major topics covered include land resources selection, physical evaluation of land suitability and land management; and water sources selection, water quality assessment (physical), waste prevention from water sources, etc. At the same time training on waste sorting, filtration and use has been given for EOs and OACs.

To improve the success of the gardens, USAID UGP has given a variety of in kind support to all IPs. The main in kind support includes family drip kits, gasoline and electric pumps, water storage tanks and others.

**Health capacity and knowledge**

During field visits conducted to assess IP capacity, EOs/CMs received refresher training on DGs and referral implementation. All IPs were assessed using the Joint Monitoring Visit checklist, which incorporates all areas of technical and operational issues. An orientation to refresh CMs’ capacity in handling DGs and referrals was provided. In addition, CMs were also oriented on how to translate resource maps into action to improve gardeners’ access to different services. The health integration officer also worked with EOs to improve scheduling, record keeping, and reporting of DG activities during office visits and discussions. They also received additional information on how to link with nearby service providers, how to identify gardeners in need of additional services, and how to update records.

Based on the established linkage with IYCN, basic nutrition training was provided to nine EOs and two OACs. The purpose of the training was to link nutrition / health to USAID UGP gardeners. The training covered basic information on nutrition, HIV/AIDS and food preparation. Trained EOs implemented what they learned at their garden sites, and they have received follow up training through field visit that builds on the first training.

**Business and savings and loan capacity and knowledge**

Fifteen CMs from fifteen IPs received training on how to train gardeners in basic business skills. Six CMs also received training in savings and loan. Training for IP heads and accountants on financial management has been developed.

An IP assessment revealed that IPs that have engaged in this activity have been successful in establishing GSLAs at both community and school garden sites. Income saved has been used to provide small loans for consumption and investment, as well as operating costs of gardening activities.

**Other capacity and knowledge**

Grants were monitored regularly to ensure that IPs’ grant management capacity is strengthened. Cycle 2 IPs received guidance in grant management systems, including using the updated grant monitoring format, timeliness of reimbursement and in-kind requests, and the role of OACs and CCs.

Stakeholder meetings have been held in operation areas, allowing for stakeholders to share experiences and lessons learned while working with USAID UGP.

A one-day grant management training to create awareness of year 4 new grant management procedures was given to IP heads and IP financial directors / accountants. Field, administrative and management staff also attended the training.

IP performance internal assessment and inventory of in-kind materials distributed has been carried out in all gardens and reports submitted to management. IPs were ranked according to their performance and level of risk to identify the most reliable ones for the new grant agreement.

IPs were directly engaged in the year 4 work plan preparation.

**Poultry**

A training guideline for EOs and OACs was finalized and given to EOs at each operational area. The

training builds capacity in:

- overall husbandry and poultry management
- gardener selection and follow-up
- environmental and public health issues associated with poultry rearing
- bio-safety measures
- feed preparation

Training in chicken (poultry) husbandry and health was given to 4,431 gardeners.

## 5. Build Income Generation Potential

### **Basic business skills**

A total of 250 gardeners in eight cities received training in basic business skills over ten training sessions with 25 gardeners participating in each session. The training participants also received assistance in establishing marketing groups using the micro and small enterprises model. EOs assisted twelve marketing groups to register and obtain legal recognition from the respective micro and small enterprise agency in six operation areas (Three in Addis Ababa, two in Bahir Dar, two in Dessie, two in Gondar, one in Debre Markos, one in Hawassa and one in Shashemene). Several businesses have been identified for the marketing groups, including:

- seeds for vegetables and ornamental plant production,
- vegetables and ornamental plant seedlings with and without pots,
- fruits and vegetables,
- eggs and feed for chicken, and
- value addition on potatoes (such as potato chips).

The 12 vegetable marketing groups also received in-kind grant support to assist in the establishment of vegetable shops and other business activities. Monitoring the operation of the marketing groups has continued. In Addis Ababa, Dessie, Gondar, Bahir Dar, Debre Markos, Shashemene and Hawassa operation areas, the marketing groups are operating well in terms of providing a market outlet for gardeners' products and generating some additional income. Marketing groups operated their own shops; shops the kebele provide are more successful than those operated under rented shops from the private sector.

### **Group Savings and Loan Associations**

Three hundred sixty-eight group savings and loan associations (GSLAs) have been established. There was a rapid increase in saving deposits of GSLAs from birr 207,914 to birr 351,261 (by birr 124,961) the engaged members were also increased from 6,903 to 8,186 (by 1,283) during the fourth quarter as most of the groups have harvested and sold their garden products which gave members more enthusiasm to work in Group Savings and Loan (GSL). Most of the gardens have been planted with field crops, and most of the GSLAs at group gardens and school gardens have distributed their saving deposits to cover important consumption demands. Most of the students took their deposits to buy stationery, uniforms and to pay their school fee. Other gardeners used their savings to supplement new-year holiday expense including school costs for children. With the support of the market information boards the gardeners access to pricing information has improved – this led to empowering them in deciding the selling prices of their stall based on market information.

Regular follow-up of the performance of the GSL and providing support in areas where there are gaps was the other major activity of the reporting period. Field visits were conducted in Northern cluster area covering Bahir Dar, Gondar, Debre Markos and Dessie operation areas. IPs such as Migbatesenay of Debre Markos that have some experience in working in saving and loan activities have progressed well in establishment of the GSLAs.

The follow up helps to observe gaps such as rising costs of shop rent, the shortage of operating capital and reclaiming the area where the shop is working for road construction by the city administration etc., and to work to solve the gaps through discussions with concerned bodies.

Based on the visible success of GSLA, the local government of Gondar has recognized GSLA as a model

to be replicated under the local government development program, and has assigned local staff to work with an IP, Wogen, in order to use this methodology throughout the area.

Crafting strategies helped to continue the GSL activities in summer vacation. The strategies have been applied in July and August when the kids will be going on 2 months vacation. The strategies include, for GSLAs where most of the kids / members leave the school due to completion of their studies, share-out of the saving and other deposit of the GSLA according to the bylaw is recommended. In GSLAs where the kids will continue next year in the same school and residing in close neighborhoods, alternative GSLA meetings day, place and time is arranged to resume the regular saving and loan activities during the period of school closure.

### **Field fairs**

Ten field fairs have been conducted over the course of the year, with hundreds of gardeners participating. The field fairs are instrumental to bring together the different stakeholders such as the government officials, input providers, service providers, potential consumers of the vegetable products and the gardeners. It forges partnerships to address some of the existing challenges such as securing land, water, and also to exploit opportunities such as market linkages and getting access to available support, such as loan fund, IGA grant and working premises. Activities included:

- briefings by EOs / AEOs,
- walk and talk with gardeners,
- visiting group and microgardens,
- selling vegetables,
- food testing, and
- wrap-up discussion.

Local government representatives reiterated their commitment to further extend their support to gardeners. The local media also promoted the project.

### **6. Ensuring Greater Sustainability for Gardeners and Promoting More Advanced Skills**

#### **Partner and cluster meetings**

Partner meetings and cluster meetings were held in February that allowed for improved linkages between IPs by providing an opportunity for them to share lessons learned regarding how to improve the program for gardeners, including mobilizing resources, building networks, etc.

#### **Special guests**

One special guest, the Deputy Ambassador of USA in Ethiopia, and one PEPFAR team visited USAID UGP. The Deputy Ambassador was accompanied by about 12 people, and the PEPFAR team was comprised of six people. Both visits were conducted in the Hawassa operation area on 11 Feb 2011 and on 23 Mar 2011 respectively. The Deputy Chief of Party (DCOP) coordinated both programs with the assistance of cluster coordinators (CCs), OAC, and AEO of Shahshemene operation area. The COP also conducted a separate field visit in Feb 2011.

#### **Technical approach**

USAID UGP is improving the sustainability of the program through the development of sustainable water sources (e.g., shallow wells, HDWs, grow bags), especially for drought-prone areas. USAID UGP is also developing strong linkages with government offices, including agriculture, health and education. Staff in each office is assigned to be the main point of contact for IPs, and are called “focal persons”. In this way, IPs will develop direct relationships with government offices beyond the life of USAID UGP.

GDs were conducted with all gardeners during which they discussed gardening sustainability, which includes technical guidance after the gardeners graduate from the program. Gardeners also engaged in activities that promote sustainability and add value such as selling seedlings, producing seeds, home-to-home based selling of vegetables, selling vegetables to hotels, hatching eggs for additional chicken and egg production, etc. The establishment of vegetable marketing groups is also expected to contribute to garden sustainability as they can help provide the income needed to invest in the gardens. Furthermore,

2011 gardens have retained their land.

USAID UGP is working to strengthen gardener peer networks. The Hiwot group garden association located at Bahir Dar held an experience-sharing session from 1-2 June, 2011. A total of 80 participants took part in the occasion during which they selected role model gardeners (10 from each city in North cluster). EOs & OACs from each city and 5 representatives from South and Central clusters attended the convention. The participants selected seven thematic areas: irrigation water management & micro gardening, pest control, crop variety selection and nursery establishment, soil fertility enhancement and environmental management, post harvest and marketing, and poultry management for group discussion. They also demonstrated good practices such as liquid fertilizer making, micro gardening, double digging, waste water filtration using gravels, village saving & loan, and animal feed (molasses) making. Participants also had the opportunity to visit group gardens sustained in Bahir Dar and integrated activities accomplished by Hiwot gardeners and provided their reflections. Gardeners found it practical and relevant, and suggested conducting it biannually and replicating at the operation area level.

Field days/fairs were organized successfully at multiple program operation areas/sites. Local government officials including City mayors, government sector heads, NGOs and business community have attended field days/fairs, gardeners have sold their produce and urban gardening promoted by local media.

**Policy**

A workshop on the Addis Ababa Urban Agriculture Situation Analysis was held in Hawassa 22-23 Nov 2010. Participants came from USAID, International Livestock Research Institute (ILRI), Environmental Protection Authority, Addis Ababa municipality land use and urban planning office, Addis Ababa Urban Agriculture office, local NGOs, Ministry of Agriculture, Trade and Industry Bureau, micro finance enterprises, private sector enterprises, and Mayors of cities.

Local Addis Ababa government offices have completed a draft policy document on urban agriculture in order to address some of the major land access challenges in the Addis Ababa area. Stakeholders have met and provide comment on the strategy and forward it to Amharic translation. Before final submission to Addis Ababa council there will be a stakeholder workshop for incorporating comments on the strategy early in November 2011.

**7. Expand the Learning and Understanding of How Gardens Improve Health Outcomes**

**Monitoring & Evaluation**

Monitoring and evaluation (M&E) is continuing throughout all operation areas and at all levels as the program requires. A baseline survey for year three beneficiaries was finalized and a report on the findings is attached. During the reporting period USAID UGP revised the PMP and provided a one-day orientation training on the revised indicators, and data collection techniques for all EOs and OACs.

**Annual meeting**

The USAID UGP annual meeting was held 15-18 Nov 2010 at the Ghion Hotel in Addis Ababa. The directors of 41 IPs were present along with the USAID UGP management team, technical advisors, OACs, EOs and AEOs. Edson Muhwezi, the USAID Contracting Officer’s Technical Representative (COTR) for the project also attended on the first day. One hundred and nine participants attended the meeting. For details and the meeting report, please see the FY2011 Q1 Report.

**8. Challenges and Constraints and plans to overcome them during the reporting period (REQUIRED)**

Over the past year the two biggest challenges faced by the program were (a) achieving scale and quality simultaneously and (b) securing long-term water access for the gardens:

- *Scale and Quality.* USAID’s primary concern in Years 1-3 was ensuring USAID UGP expanded as quickly as possible, reaching tens of thousands of additional beneficiaries annually. Year 3 was no exception and the project budget and technical design were structured to ensure scale was achieved.

Unfortunately, gardening is a challenging and long-term commitment that takes sustained and dedicated technical assistance. Expansion targets were exceeded during the annual period, but unfortunately some gardeners did not acquire and adopt the necessary long-term skills to ensure long term behavior change in gardening, water management, income generation and savings and healthy behaviors takes place.

- *Securing Water Access.* The primary concern in the vast majority of all USAID urban gardens is long-term and dependable access to quality water sources. Currently water access in most gardens comes from either municipal water sources or cyclical rainy seasons. Neither of these options are particularly dependable; they also provide too much rain in some periods of the year and none in others. In particular, municipal water is expensive and has in some cases caused community support for the gardens to erode as scarce water resources were diverted from other households to the gardens. Without investment in comprehensive water systems and wells, gardens will not be able to achieve required water security.

USAID UGP will mitigate these constraints related to (a) achieving scale and quality simultaneously and (b) securing long-term access for the gardens to water, as follows:

- *Scale and Quality.* In Y4 USAID UGP will reduce the overall expansion target and shift significant resource, time and persons to ensuring strong capacity building at all gardens. The program has set a Y4 goal of achieving “quality, empowerment and sustainability” meaning that the program will carefully target project investments on capacity, skills and knowledge building (and very limited physical investments) of gardeners and IPs to manage, sustain and expand gardens without program support (especially in gardening, water management and environmental stewardship). Targeting will also include continuing to deepen formal / informal linkages and partnerships with local government and other civil society organizations to ensure that additional localized support in agriculture, health and education is available.
- *Securing Water Access.* In Y4, USAID UGP will continue efforts that started in Y3 to expand investment in infrastructure and training in water systems. Although significant investments have been made in irrigation (drip kits, water containers, and surface irrigation technologies) and water access (wells), the gardens have had difficulties adopting a systems approach to their water management. Our Y4 goal is that gardeners understand what a water system is and why it is critical to the future of their gardens. They will also understand different water options beyond irrigation and wells, including rain water harvesting and management (from roofs and water catchment areas) and soil moisture maximization (through mulching). Most importantly, gardeners will understand how the system links irrigation to water access to management to technology to ensure all pieces of the garden’s water management system are equally beneficial and water access, utilization and conservation is maximized.

**9. Data Quality issues during the reporting period (REQUIRED)**

Specific concerns you have with the quality of the data for program areas reported in this report

- Double counting of gardener training participants may have occurred during the reporting period because there is no proper training data capturing mechanism at IP level.
- Difficulties associated with recording and reporting support received by OVC
- Inconsistent reporting of data on type of gardeners and sex disaggregation by EOs.
- Lack of better tracking system for vegetable consumption and harvest data.
- Limited interest among IPs to develop and use internal data recording tools.
- OACs and IPs do not send updates on the list of gardeners when there are drop outs

What you are doing on a routine basis to ensure that your data is high quality for each program area

- Reached a consensus on reporting the highest participant number of all three months as the quarterly accomplishment, instead of summing the three months.
- Establish uniform understanding among OACs on recording and reporting of some ambiguous

<p>indicators such as number of gardens established and number of gardeners trained by type of training.</p> <ul style="list-style-type: none"> <li>- Provide orientation training and indicator definitions to all OACs and EOs on the revised PMP.</li> <li>- Frequently reconcile on reported data across the original gardener data with the OACs and CCs.</li> <li>- Ensure OACs conduct regular monitoring of the harvest and consumption indicators that the EOs report.</li> <li>- Provide simple data collection tools for various activities that can be applicable at the IP level and supervise and monitor its utilization during various technical team field visits.</li> <li>- Ensure OACs and IPs send updates when gardeners drop out using a format that is prepared for this purpose</li> <li>- Communicate with the OACs and CCs whenever there are discrepancies.</li> </ul>
<p><u>How you planned to address those concerns / improve the quality of your data for each program area</u></p> <ul style="list-style-type: none"> <li>- Involve technical team in reporting of each program area in order to triangulate data.</li> <li>- Include the CCs in closer monitoring of data recording at operational area level.</li> <li>- Conduct monthly monitoring and supervision visits to observe and support IPs' record keeping and ground level work.</li> <li>- Involve technical team in reporting of each program area in order to triangulate data.</li> <li>- Include the CCs in closer monitoring of data recording at operational area level.</li> <li>- Conduct quarterly data quality assessment</li> </ul>

**10. Major Activities planned in the next reporting period (REQUIRED)**

<p><u>Upcoming activities should highlight planned activities and solutions to identified constraints (write for each program area)</u></p> <ol style="list-style-type: none"> <li>1. <u>OVC Care and Support</u> <ul style="list-style-type: none"> <li>- Conduct field visit to the three clusters</li> <li>- Provide training on child friendly gardening and school committee formation</li> <li>- Finalize the guideline for child friendly school gardening</li> </ul> </li> <li>2. <u>Deepen Long-Term Urban Gardens Capacity, Management and Policy</u> <ul style="list-style-type: none"> <li>- Improve Community Garden Management</li> <li>- Strengthen Quality and Management of School-Based Gardens</li> <li>- Water Supply and System Improvement</li> <li>- Improve Irrigation and Water Savings Techniques</li> <li>- Expand knowledge of Environmental Practices, Technologies, Services and Vendors</li> <li>- Review Land Access Issues for Gardens</li> <li>- Strengthen and Expand Urban Agriculture Policy Framework</li> </ul> </li> <li>3. <u>Expand Integrated Opportunities for Economic Creation and Market Access</u> <ul style="list-style-type: none"> <li>- Mobilize Savings and Expand Gardeners Financial Literacy</li> <li>- Improve Understanding of Market Dynamics and Market Identification</li> <li>- Strategic Marketing Events and Formation of Market Groups</li> <li>- Strengthen Backyard Poultry Program</li> <li>- Identify Additional Garden Centric Market Opportunities</li> </ul> </li> <li>4. <u>Deepen understanding of Linking Gardening to Improved Health Outcomes</u> <ul style="list-style-type: none"> <li>- Strengthen and Expand Garden Health Referral Networks</li> <li>- Expand Health and Nutritional Education Opportunities</li> </ul> </li> <li>5. <u>Build Capacity and Knowledge of IPs</u> <ul style="list-style-type: none"> <li>- Improve Capacity of IPs to Plan for Long-Term Institutional Sustainability</li> </ul> </li> </ol>
--

**6. Monitoring and Evaluation**

- Quarterly Data Quality assessment
- Updating data collection tools
- Training on the updated tools Data quality
- Field monitoring visit

**7. Communication, Outreach and Knowledge Sharing**

- Hold Targeted Learning Seminars and Knowledge Sharing Events
- Effectively Communicate Project Information, Achievements and Lessons Learned

**II. Environmental Compliance**

Describe any issues related to environmental compliance (if there are any)

During the program year the following achievements were accomplished in supporting gardens to have quality gardens and produce. Each garden developed an Environmental mitigation and monitoring plan (EMMP). Accordingly, all the gardens under USAID UGP operation have been managed through the EMMP. Implementation monitoring has also occurred at each garden. In lands where special support has been needed (e.g. in flood affected areas) soil and water conservation structures and or drainage structures have been constructed. The program has acted in a way to comply with the requirements of USAID 22CFR Reg 216. The major achievements in this regard include:

**I. The Environmental Management Plan**

The environmental advisor oversees the compliance with the IEE that was conducted in 2008, and works closely with the USAID environmental officer to ensure that all gardens are in compliance with the IEE. Training has been given to all OACS, EOs, AEOs on how they will be using the EMMP. The IEE has been implemented by developing EMMPs for each garden that USAID UGP establishes. EMMP implementation varies from garden to garden. In some fields known to have sloped lands bed preparation (across the slope), bunding & terracing have been constructed. In flat to level fields drainage improvement (raised beds, drainage ditches, etc) structures have been constructed to make gardening possible during rainy seasons.

**• Initial Environmental Examination (IEE) Amendments**

USAID UGP aims to supplement the existing water sources (which are challenges for the program) by developing shallow wells in some selected towns in school gardens. For the activity to go ahead there is a need to develop an amendment of the IEE to make sure that environmental issues in well development comply with the USAID 22CFR 216. For implementing the development of shallow wells, amendments have been prepared to supplement the program's IEE. USAID UGP's in-house environmental resources advisor, with supervision by the DCoP and working with the USAID Mission Environment Officer, developed the amendment that will allow for the scaling up of water access activities in the fourth year of the program. This will have implications for the construction of wells, river diversion and roof water harvesting activities.

**2. Checking quality of water and land sources**

All gardens have been checked for their suitability for vegetable gardening through assessment of the gardens in physical observation and laboratory checking for precision. The prevailing contamination risks/hazards, fertility status, potential contaminations/contaminants were checked. Accordingly four gardens – two at Jimma, one at Adama, and one at Hawassa) were denied for use due to fertility problems (demanding much work for improvement) before registering the gardens and gardeners were transferred

to other gardens. Around 12 gardens were found marginally suitable for gardening because of erosion and wastes damped over, but remedial measures were taken and the gardens are in use after being well cleaned and treated with soil conservation and fertility improvement measures

#### **Soil quality tests**

A sludge accumulated at the Kombolcha textile factory has been anticipated as a natural fertilizer for the USAID Urban Gardens Program gardens, and a request came from the area for clearance. Two samples collected from the top and middle of the accumulation were tested for the chemical characteristics for use as natural fertilizer. But the results showed a significance availability of heavy metals like Chromium, Cadmium, Cooper, Nickel, Lead and zinc. The analysis results have been delivered to the respective organs at the site and recommendations made for them not to use the sludge for fertilizing the soil for vegetable gardening.

At the same time the suitability of two other gardens (Modjo, Bahir Dar) was checked by laboratory analysis. The results in Modjo do not show any risks but those in Bahir Dar showed less availability of nitrogen demanding nitrogen application through leguming/manuring. The results for all cases have been communicated with the respective bodies for reclamations.

#### **Water quality tests**

Water quality analysis tests have been performed for 24 gardens with samples collected from the water collection sites for the gardening activity, and analysis tests were performed at Gondar, (for Bahir Dar & Gondar gardens), at Debre Markos (for Debre Markos gardens), at Hawassa (for Hawassa Gardens), and at Addis Ababa (for Hawassa, Ziway, Adama, Dessie, Wolisso and Sebeta Gardens). Water quality analyses have been conducted in two scenarios – for new constructed wells and existing/flowing water sources. Most of the newly constructed wells (2 at Hawassa, 2 at Ziway, 2 at Wolisso, 1 at Sebeta, 7 at Debre Markos, 2 at Bahir Dar) were checked for suitability and analysis checked for irrigation and drinking purposes. The test results in Hawassa and Ziway showed that the water from the wells is not potable but can be fully used for irrigation purpose. The concerned bodies were informed and the wells are labeled as “Not Potable” so that people will not use the water for drinking purposes. The wells at Debre Markos and Bahir Dar are also found not to be used for drinking purpose, but can be used for irrigation. Those wells constructed at Wolisso, Sebeta and Jimma are suitable for both drinking and irrigation purposes. At the same time existing water/flowing sources at Dessie, Bahir Dar, Gondar, Hawassa, and Adama, were checked for suitability for irrigation. In all cases except Dessie the water sources are found suitable for irrigation purposes.

One garden, run by an IP at Debre Zeit town, was expected to use waste water coming from washing parts of a plastic factory. Physical observation was made and it was decided to temporarily suspend using the waste water and one sample (2 liters) was taken to laboratory for physic-chemical and bacteriological analysis. The parameters which were tested were TDS, TSS, COD, BOD5, Fecal Coliform, Heavy metals, EC, Alkalinity, Acidity, phenol and others. The test results, finalized by Addis Ababa Environmental Protection Authority Environmental Laboratory, indicated severe pollution. Therefore, the water source (waste water) cannot be used at all for vegetable gardening.

A water quality analysis test was performed for the waste water coming from a slaughter house, which used to be employed for irrigation. The test results showed a risky situation for gardeners and produce users. Therefore, the waste water which was coming from the slaughter house and passed through the garden is now conveyed to go out of the garden and halted from use.

### **3. Water access options**

Accessing water was a significant challenge in making gardens active and productive. Different options were sought and the feasible one is being used for the gardening activities. In some cases costly bored shallow wells have been constructed. In this regard five shallow boreholes have been constructed at five schools in four towns (Hawassa -2, Ziway, Wolisso and Sebeta), and fitted with Afridev hand pumps. 27 HDWs (fitted with Afridev hand pumps and rope & washer pumps) are constructed and 10 of them under

construction in all cities in the country. An initial environmental examination amendment has been prepared for the well construction work and was set in place while working in the construction of the wells at all sites. The wells were fitted with appropriate water lifting devices, and three of the wells (2 at Hawassa and one at Modjo) were also fitted with proper water conveyance systems to ease water transportation from the sources to the garden plots.

#### **Shallow wells construction**

**Bore holes:** Five bore holes with 51 meter depth at Ziway, 39 & 47 meter depth at Hawassa, 56 meters depth at Sebeta and 73 meter depth at Wolisso were constructed by a skilled drilling company. The wells were installed with blind and screen casings and fitted with Afridev hand pumps, where in Wolisso the pump position was deeper to a depth of 45 meters, and in others to a minimum of 30 meters depth. All cares have been in place during and after construction and though there was a drilling failure at Hawassa, no any hazards or damages occurred. All the wells are functioning well in the gardens. The abandoned well (in Hawassa) is reworked and filled up.

**HDWs:** A total of 27 HDWs will serve gardens, 17 are already completed and in operation. The remaining ten are currently under construction. Among the HDWs, 20 are fitted with Afridev hand pumps and 7 of them are fitted with rope and washer pumps. The depth varies from 6 to 22 meters. There were many abandoned wells (Wolisso, Bahir Dar and Finote Selam) due to hard formations before having sufficient water for pumping. The abandoned wells are refilled to prevent drowning of people and other animals and to make the area suitable for others. The IEE amendment prepared before the commencement of well digging has been in use with many components included in the contract agreement. Therefore, no safety issues have been reported to date.

#### **Water lifting devices**

A variety of pumps (hand, rope and washer, gasoline and electric) were distributed for use to the needy gardens for lifting water from the source to a storage/use area. These pumps are used to pump out water from wells, river and other sources and the water has been used for irrigation employing/applying the water through surface/ furrow and drip irrigation systems. Any safety issues in installation and operation & maintenance were circulated to the people working on the equipments.

#### **Water saving technologies**

As the major technology in the program, drip irrigation using family drip kit has been used for gardening. Many gardens have been using municipal water sources and the preferred water application system is found to be family drip irrigation. A unit with one full system for two gardeners was the standard in-kind support in this regard. Drip kits have been distributed when there is a need to alleviate water shortage and highly reduce water Evapo-Transpiration. The system has also helped gardeners to save their labor, to have uniform water application, and many more uses.

To ease water use and to protect the land from irrigation-induced erosion, care has been taken to irrigate by breaking the velocity of water flow from pump hoses through proper release of the water jet. Water tanks are also in use to store water for use at other times. The use of water cans was also taken as an alternative for safe and direct watering.

#### **Improving the quality of vegetables**

In some cases, especially in schools, there are lands near latrines, but that land can still be used for vegetable production. In such circumstances the program has devised and acted on two tiers of solutions (short term and long term) in order to use the open lands for gardening. As a short term solution the program kept the latrines as clean as possible, covering the latrine openings (like windows and some parts) with biodegradable materials where flies were prevented from flying to the gardens and on the

vegetables; and consumers have been advised not to eat uncooked vegetables, and to wash produce with clean water.

As a long term solution, USAID UGP is encouraging growing longer height grasses (like elephant grass) and other trees on the border between the latrine and the garden, planting vegetables away from the latrines; and planting vegetables whose edible parts are not exposed to contamination with wastes from the latrine (crop selection).

Gardeners have also been educated on the environmental safety and use of vegetables. They have been advised to wash vegetables with clean water and to cook foods, especially in risky circumstances. As all gardens are expected to produce organic vegetables, gardeners have been advised to use organic manure, compost and agricultural practices to improve their garden/land and organic pesticides to prevent pest infestation, and they have been doing so accordingly.

**Waste water sorting and use for vegetable irrigation**

To make use of household waste water for garden irrigation, waste water sorting and filtration has been found to be a suitable technology. Every individual who will use the technique is hoped to have at least hand washing waste water. This technology has been demonstrated and is in use in a few areas. The technique is supposed to serve mainly micro-gardening activities. This will be scaled up to many more gardens/gardeners in the coming year. Training has been given for 4 OACs and 14 EOs on collecting, sorting and reusing household grey water for micro-gardening, at their respective areas. This is feared to bring resistance from gardeners, but EOs will further be encouraged to help gardeners to go ahead on using sorted grey water. This training is expected to continue for others too, and to go ahead in year 4.

**12. Financial accomplishment**

(... in USD)

Life of Project budget (a)	Obligated to date (b)	Expenditure (Accrual and actual disbursement) to date (c)	Remaining balance (d) = (b) – (c)	Remarks
<b>\$9,838,220</b>	<b>\$7,241,072</b>	<b>\$7,095,543</b>	<b>\$145,529</b>	

**13. Issues requiring the attention of CDC ETHIOPIA Management**

Identify and state issues that CDC ETHIOPIA needs to look at and address for each program area

None.

**14. Data Sharing with Host Government:**

Have you shared this report with the host government?

Yes   
No

If yes, to which governmental office/s?

[Please put your response here]

If No, why not?

It is not contractually required.

## 15. Appendix

### Summary Table of Additional M&E Indicators

Indicator	Annual Result
Number of gardens established	475 <sup>5</sup>
Number of schools with micro gardens	67
Number of gardens by type of water source	
Municipal water	307
River water	51
Hand-dug well	50
Spring	13
Other	66
Discussion groups	
Number of discussion groups established	421
Number of functioning discussion groups at end of reporting period	390 <sup>6</sup>
Number of beneficiaries participated in at least one group discussion during the reporting period	13,076
Number of beneficiaries trained by type of training	
Gardening	11,920
Marketing and GSL	7,910
OVC Care	4,132
HIV Prevention, Care and Treatment	5,853
Nutrition	8,114
Gender	2,695
Environmental Mitigation	8,557
Fruit tree management	3,190
Poultry raising	4,431
Other	4,963
Number of OVC referred to OVC support services by type of service	
Food and Nutrition	
Shelter and Care	4,466
Protection	231
Healthcare Services	525
Psychosocial Support	2,390
Educational and Vocational Training	1,923
Economic Strengthening	3,876
	833
Number of beneficiaries referred to HIV/AIDS Services	
ART	1,118
PMTCT	168
Anti-TB	241
VCT	905
HCBC/PC	1,166
Environmental mitigation and monitoring plan	
Number of gardens with environmental mitigation and monitoring plan	236
Number of gardens implementing environmental mitigation and monitoring plan	230

<sup>5</sup> 50% (252) of gardens established involves homestead garden which is managed by beneficiaries livelihood

<sup>6</sup> 93% of the discussion groups are functional. Out of the total 421, 252 groups are established by the OVC group and among the established OVC group 229 are functional.

Number of gardens using water saving technologies	87
Total number of fruit trees distributed	11,216
Average amount of vegetables harvested by garden site (kg)	800,158
Average amount of vegetables consumed by garden site (kg)	311,702
Total number of beneficiaries engaged in small-scale poultry raising	3,600
Total number of beneficiaries rearing chicken following the EMMP recommendations	2,970
Total amount of poultry products produced	Egg 48,496 Chicken 56
Total amount of income gained from surplus poultry products sale (birr)	49,724
Average amount of income gained from surplus vegetable sale by garden site (birr)	878,838
Number of saving and loan groups established during the reporting period	368
Number of beneficiaries engaged in saving and loan	8,186
Total amount of money saved (birr)	351,261
Total amount of loan disbursed to GSL members (birr)	75,924