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## President's Malaria Initiative

# UGANDA INDOOR RESIDUAL SPRAYING (IRS) PROJECT QUARTERLY PERFORMANCE REPORT JANUARY 1<sup>ST</sup> THROUGH MARCH 31<sup>ST</sup>, 2011



April 2011

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## Acronyms

<b>Abt</b>	Abt Associates, Inc.
<b>BCC</b>	Behavior Change Communication
<b>CDC</b>	Centers for Disease Control and Prevention
<b>CDFU</b>	Communications for Development Foundation Uganda
<b>CDO</b>	Community Development Officer
<b>COP</b>	Chief of Party
<b>COTR</b>	Contracting Officer's Technical Representative
<b>DDHS</b>	District Director of Health Services
<b>DEO</b>	District Environment Officer
<b>DHE</b>	District Health Educator
<b>DHI</b>	District Health Inspector
<b>DHO</b>	District Health Officer
<b>DHT</b>	District Health Team
<b>EMCaB</b>	Environmental Management Capacity Building
<b>FAQ</b>	Frequently Asked Questions
<b>GFATM</b>	Global Fund to fight Aids, Tuberculosis and Malaria
<b>GIS</b>	Geographic Information System
<b>GISO</b>	Gombolola Internal Security Officers
<b>GoU</b>	Government of Uganda
<b>GPS</b>	Global Positioning System
<b>HHS</b>	U.S. Department of Health and Human Services
<b>IEC</b>	Information, Education and Communication
<b>IEE</b>	Initial Environmental Examination
<b>IR</b>	Intermediate Result
<b>IRS</b>	Indoor Residual Spraying
<b>LC</b>	Local Council
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MOH</b>	Ministry of Health
<b>MOP</b>	Malaria Operational Plan
<b>MOU</b>	Memorandum of Understanding
<b>NEMA</b>	National Environment Management Authority
<b>NMCP</b>	National Malaria Control Program
<b>PMI</b>	President's Malaria Initiative
<b>PMP</b>	Performance Management Plan
<b>PPE</b>	Personal Protective Equipment
<b>PSC</b>	Pyrethrum Spray Collections
<b>RBM</b>	Roll Back Malaria
<b>SEA</b>	Supplementary Environmental Assessment
<b>SOEP</b>	School of Entomology and Parasitology
<b>STTA</b>	Short Term Technical Assistance
<b>TA</b>	Technical Assistance
<b>TOT</b>	Training of Trainers
<b>USAID</b>	U.S. Agency for International Development
<b>WHO</b>	World Health Organization
<b>VCD</b>	Vector Control Division

## Executive Summary

This report presents the Uganda Indoor Residual Spraying (IRS) Project's progress in the second quarter of Year Two (January 1<sup>st</sup> through March 31<sup>st</sup> 2011). The report outlines the key project activities and achievements in the quarter, the challenges and constraints faced, lessons learned, innovative approaches and recommendations for future implementation.

## Background

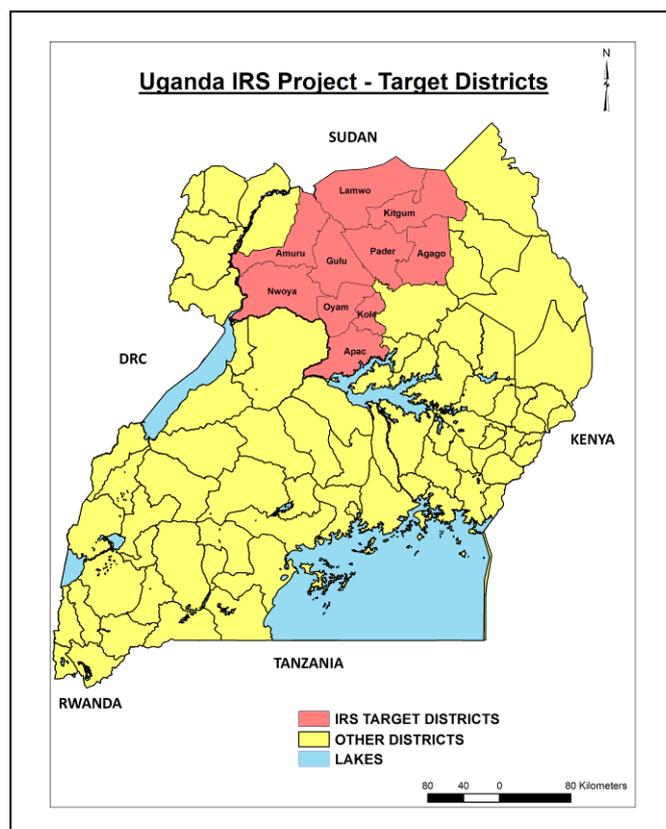
The purpose of the Uganda IRS Project is to achieve the President's Malaria Initiative (PMI) Uganda targets in indoor residual spraying. In particular, the Uganda IRS Project contributes to IR.8.1: Effective use of social sector services through three main objectives:

- Implementation of a high quality IRS program;
- Conducting comprehensive monitoring and evaluation of the IRS program;
- Developing the national capacity to conduct IRS.

The PMI goal is to reduce malaria-related mortality by 50% by the end of 2014 in the following vulnerable groups: children under five and pregnant women. PMI/Uganda has a five-year strategic plan and an annual Malaria Operational Plan (MOP) which guides current implementation and scale-up of activities. IRS is the largest component of the MOP and is the cornerstone of the PMI/Uganda program.

The Uganda IRS program activities are being carried out with full collaboration of the Uganda National Malaria Control Program (NMCP) and cover ten priority districts. The six original districts of Amuru, Apac, Gulu, Kitgum, Oyam and Pader were revised to create four new districts of Nwoya, Kole, Lamwo and Agago carved out of Amuru, Apac, Kitgum and Pader respectively. The project started referring to the four new districts with effect from October 2010.

Abt Associates, Inc. (Abt), as prime contractor of this program, manages and directs all technical component activities in support of IRS planning, procurement, implementation, monitoring, and capacity building. In addition to Abt, the project is supported by Communications for Development Foundation Uganda (CDFU), a subcontractor which provides expertise and support for Information, Education and Communication (IEC) and Behavior Change Communication (BCC) activities of IRS program campaigns and population sensitization under the direction of Abt technical staff.



## Project Activities/Achievements

In this quarter the project activities focused on the six districts of Apac, Oyam, Kole, Amuru, Nwoya and Gulu. All six districts were undergoing the third round of spraying under Abt Associates. In Apac, Kole and Oyam, spraying commenced on January 5<sup>th</sup>, 2011 and concluded by January 29<sup>th</sup>, 26<sup>th</sup> and 30<sup>th</sup> respectively. Amuru, Nwoya and Gulu districts commenced spraying on March 9<sup>th</sup> 2011 and concluded spraying by March 31<sup>st</sup>, 2011.

Spraying in Apac, Kole and Oyam was completed in an average of 20 spray days involving 1,095 spray operators. The insecticide usage rate was an average of 2.6 houses per sachet with each operator spraying an average of 13 houses per day. A total of 261,629 households were found of which 260,469 (99.6%) were sprayed. The total population found was 740,040 of which 736,643 (99.6%) were protected after IRS.

In Amuru, Nwoya and Gulu, spraying was completed in an average of 18 spray days involving 1,221 spray operators. The insecticide usage rate was an average of 2.8 houses per sachet with each operator spraying an average of 12 houses per day. A total of 265,306 households were found of which 262,406 (99.3%) were sprayed. The total population found was 881,150 of which 873,973 (99.5%) were protected after IRS.

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## Activities by Intermediate Result

### 1.1. Result 1: High-Quality IRS Program Implemented

**Strategy:** Planning, management and implementation of indoor residual spraying in collaboration with key stakeholders.

*Table 1: Result 1 Indicators*

Indicator	FY 2011 Target	Quarter 1 Target	Quarter 1 Actual	Quarter 2 Target	Quarter 2 Actual
Number of district level planning and introductory meetings conducted	20	4	4	6	6
Number of people trained in IRS*	1,017	254	334	255	348
Number of IRS print materials disseminated**	5,000	0	0	1,500	1,500
Number of radio spots aired	2,400	560	560	700	700
Number of radio talk shows conducted	120	27	27	33	33
Number of community members sensitized on IRS	3,000	495	495	550	550
Number of districts sprayed	10	4	4	6	6
Number of households sprayed with IRS	1,681,011	343,122	358,409	514,166	522,875

\* Number trained includes health workers (laboratory technicians); store keepers and new spray personnel (spray operators, team leaders, supervisors, and wash persons). Returning spray personnel had a one-day orientation meeting.

#### Accomplishments this quarter:

##### *Procurement and Logistics*

All items required for the January to March spray rounds were acquired in time as needed. Notable among these was 174,360 sachets of Bendiocarb.

A decision was made to take on logistics in-house starting with Year Two. Significant progress has been made including: filling of all logistics staff positions; strengthening procedures and designing new forms to track inventories; and redesigning the central stores layout to facilitate control of inventory. This has resulted in distribution of logistics in a timely manner enabling spraying to start on schedule at all locations this quarter. However, there is still significant work to be done including: strengthening of the inventory systems; refining estimates for replacement quantities of standard stock items; replacement of sub-standard stores in Gulu and Amuru districts with more adequate facilities; and strengthening record keeping. These issues will be the subject of significant effort in the coming quarter.

### *IEC/BCC*

During the quarter, IEC/BCC activities were carried out in the districts of Apac, Kole, Nwoya, Gulu, Amuru and Oyam by project partner CDFU. CDFU organized IRS interactive pre and post radio talk shows to sensitize and educate the community members about IRS good practices. Guest speakers included district and community leaders. In addition, IRS committees comprising of religious leaders from different sects, Head teachers, Gombolola (sub-county) Internal Security Officers (GISOs), Sub-county chiefs, CDOs, LCIII Chairmen and VHTs from within the parishes were used for mobilization and sensitization of the community. The IRS committees used market days, church services, funeral rites gatherings, sub-counties meetings and moving door-to-door to reach huge numbers of the community with IRS messages. Leaflets of Frequently Asked Questions (FAQs) were disseminated by the IRS committee to community members who can read. Table 2 below highlights the IEC/BCC activities conducted in the quarter.

Table 2: IEC Activities

District	IEC committees community sensitization meetings		Radio spots	Radio talk shows	IEC/BCC Materials Disseminated
	No. of Meetings	Committee Members			
<b>Apac</b>	10	110	140	6	0
<b>Kole</b>	5	55	140	6	0
<b>Oyam</b>	8	88	140	6	0
<b>Gulu</b>	17	187	70	5	700
<b>Nwoya</b>	5	55	70	5	400
<b>Amuru</b>	5	55	140	5	400
<b>Total</b>	<b>50</b>	<b>550</b>	<b>700</b>	<b>33</b>	<b>1,500</b>

### *Spraying Operations*

#### **Micro-planning**

A one-day micro-planning meeting was held for the districts of Amuru and Nwoya on January 18<sup>th</sup> and 19<sup>th</sup> 2011 respectively. The micro-planning meeting for Gulu which was planned for January 20<sup>th</sup> 2011 was postponed due to a planned boycott by the Health Assistants who were demanding involvement of all 30 of the Health Assistants while the meeting was planned for 17. The conflict was resolved and the planning meeting in Gulu was held on January 25<sup>th</sup>, 2011. In Apac, Kole and Oyam districts, the micro-planning meetings were held on 24<sup>th</sup>, 25<sup>th</sup> and 26<sup>th</sup> November 2010 respectively. Participants in the micro-planning meetings included IRS supervisors (Health Assistants), District Health Team (DHT) members, Team leaders, Environmental Officers and Storekeepers. The meetings aimed at bringing all stakeholders on board during the IRS planning for the upcoming spray round in the three districts. The meeting laid plans for the third round of IRS in the districts and equipped participants with IRS knowledge and skills. Dissemination

of the end of spray report for the previous spray round was also done during the meeting. Table 3 below highlights the details of the meeting participants:

*Table 3: Micro-planning participants*

District	Category	Male	Female	Total participants
Amuru	Supervisor	6	4	10
	Team leader	69	6	75
	Store keeper	6	18	24
	DHT member	8	0	8
<b>Total</b>		<b>89</b>	<b>28</b>	<b>117</b>
Nwoya	Supervisor	6	2	8
	Team leader	31	1	32
	Store keeper	11	3	14
	DHT member	6	2	8
<b>Total</b>		<b>54</b>	<b>8</b>	<b>62</b>
Gulu	Supervisor	13	5	18
	Team leader	110	21	131
	Store keeper	22	11	33
	DHT member	12	3	15
<b>Total</b>		<b>157</b>	<b>40</b>	<b>197</b>
Apac	DHT members	8	1	9
	Environment officer	1	0	1
	Team Leaders	54	0	54
	Supervisors	9	1	10
<b>Total</b>		<b>72</b>	<b>2</b>	<b>74</b>
Kole	DHT members	6	3	9
	Environment officer	1	0	1
	Team Leaders	37	0	37
	Supervisors	5	0	5
<b>Total</b>		<b>49</b>	<b>3</b>	<b>52</b>
Oyam	DHT members	8	2	10
	Environment officer	0	0	0
	Team Leaders	61	0	61
	Supervisors	10	1	11
<b>Total</b>		<b>79</b>	<b>3</b>	<b>82</b>
<b>Grand Total</b>		<b>500</b>	<b>84</b>	<b>584</b>

### Recruitment and Orientation of Spray Teams

During this quarter, a recruitment guideline was developed outlining who qualifies for recruitment on the spray team. The guidelines were in place but had not been printed and distributed resulting in lack of transparency in the recruitment process. The guidelines were printed and distributed to all team leaders, supervisors and a copy was placed at each parish store. Recruitment priority is given to

VHTs and parish residents who can read and write, have good records and are above 18 years of age. Spray personnel who participated in the previous spray rounds were also given priority based on their past performance. Those who acquired unsatisfactory performance or bad records were screened and discontinued from taking part in any IRS activities. The newly developed human resource database containing the profiles of all spray personnel enabled tracking of attributes like individual performance and discipline incidences. The district takes the lead in the recruitment which is carried out by DHTs with oversight provided by Abt staff. The recruited spray personnel include: supervisors, team leaders, spray operators, wash persons and storekeepers.

Prior to commencement of spray activities a one-day orientation meeting was held at the sub-county level for returning spray personnel. The orientation sessions were conducted on January 3<sup>rd</sup> 2011 for Apac, Kole and Oyam districts and March 7<sup>th</sup> 2011 for Amuru, Nwoya and Gulu districts. These sessions reviewed spray techniques and data management procedures. All new recruits (spray operators, team leaders, supervisors, and wash persons) were retained for two more days of training while the others commenced with spraying. All the store keepers (new and old) attended the new spray personnel training to get acquainted with environmental compliance issues, spray techniques and data management procedures. IRS supervisors and team leaders facilitated the new spray personnel trainings. A total of 166 new spray personnel were trained. The table below highlights the new spray personnel trained per district:

*Table 4: Spray Personnel Training\**

<b>District</b>	<b>Trained (New)</b>	<b>Male</b>	<b>Female</b>
Apac	29	25	4
Kole	14	12	2
Oyam	49	46	3
Amuru	19	14	5
Nwoya	9	8	1
Gulu	46	35	11
<b>Total</b>	<b>166</b>	<b>140</b>	<b>26</b>

*\*The spray personnel training was conducted only for new recruits.*

### **Training for Storekeepers**

A one-day refresher orientation on record keeping and store management was conducted for 146 store keepers in Amuru, Nwoya and Gulu districts on January 19<sup>th</sup>, 20<sup>th</sup> and 26<sup>th</sup> 2011 respectively and November 25<sup>th</sup>, 26<sup>th</sup> and 27<sup>th</sup> 2010 in Apac, Kole and Oyam districts respectively as detailed in the table below:

*Table 5: Store keepers training*

<b>District</b>	<b>No. of Participants</b>	<b>Male</b>	<b>Female</b>
Amuru	27	23	4
Nwoya	14	12	2
Gulu	34	24	10
Apac	30	26	4
Kole	16	15	1
Oyam	25	15	10
<b>Total</b>	<b>146</b>	<b>115</b>	<b>31</b>

### Orientation for Heath Workers'

Laboratory Technicians from Amuru, Nwoya and Gulu districts were oriented on how to carry out pregnancy tests on February 22 – 24, 2011. A total of 36 lab technicians from the three districts participated in the orientation which was conducted by district medical doctors. After the training, and prior to the beginning of the spray round, the lab technicians conducted pregnancy tests on all female spray personnel. A few female spray personnel whose tests turned out to be positive were replaced before commencement of the spray round.

### Launch of Spraying

Spraying commenced on January 5<sup>th</sup> 2011 in all the sub-counties in the three districts of Apac, Kole and Oyam. This was the first time for all the sub-counties in all the districts to start spraying on the same day. Spraying in Apac, Kole and Oyam was concluded by January 29<sup>th</sup>, 26<sup>th</sup> and 30<sup>th</sup>, 2011 respectively, except for two parishes in Oyam district which concluded spraying on February 1<sup>st</sup>, 2011. On average, spraying was done in 20 spray days involving 1,095 spray operators. The insecticide usage rate was an average of 2.6 houses per sachet with each spray operator spraying an average of 13 houses per day. A total of 266,061 households were found of which 264, 901 (99.6%) were sprayed. The total population found was 751,908 of which 748,511 (99.6%) were protected after IRS.

In Amuru, Nwoya and Gulu districts, spraying commenced on March 9<sup>th</sup>, 2011 in all sub-counties in the three districts. Spraying in all three districts was suspended on March 11<sup>th</sup>, 2011 as the day was declared a public holiday in honor of the former RDC and LCV chairman of Gulu district. In Amuru, spraying in all parishes was concluded by March 31<sup>st</sup>, 2011 while all parishes in Nwoya concluded spraying by March 30<sup>th</sup>, 2011. In Gulu district, all sub-counties concluded spraying by March 31<sup>st</sup>. The spraying was done rigorously including thorough spraying of institutions like Lacor hospital in Gulu district where all the patients were evacuated to allow for the spray activity. Spraying was completed in an average of 18 spray days involving 1,221 spray operators. The insecticide usage rate was an average of 2.8 houses per sachet with each spray operator spraying an average of 12 houses per day. A total of 266,190 households were found of which 262,406 (98.6%) were sprayed. The total population found was 883,810 of which 873,973 (98.9%) were protected after IRS.

Table 6 below gives the details of the output indicators for the six districts.

*Table 6: Summary of IRS Output Indicators for Apac, Kole, Oyam, Amuru, Nwoya and Gulu districts*

Indicator	Apac	Kole	Oyam	Amuru	Nwoya	Gulu	Total
No of districts sprayed	1	1	1	1	1	1	6
Targeted households	94,899	69,206	105,992	74,484	33,004	136,581	514,166
Total households	90,562	72,507	102,992	77,656	35,695	152,839	532,251
Households fully sprayed	86,658	71,172	99,545	76,756	34,731	148,639	517,501
Households partly sprayed	3,342	1,316	2,868	645	80	1,555	9,806
Total households fully and partly sprayed	90,000	72,488	102,413	77,401	34,811	150,194	527,307
Households not sprayed	562	19	579	255	884	2,645	4,944
% of households partly or fully sprayed	99.40%	99.9%	99.40%	99.70%	97.5%	98.30%	99.1%
% of households not sprayed at all	0.6%	0.1%	0.6%	0.3%	2.5%	1.7%	0.9%
Targeted population	275,592	189,528	295,981	248,034	109,641	441,702	1,560,478
Total population	260,292	193,258	298,358	265,522	117,170	501,118	1,635,718
Total population protected	258,557	193,196	296,758	264,791	114,510	494,672	1,622,484
Total population not protected	1,735	62	1,600	731	2,660	6,446	13,234
% of population protected	99.3%	99.9%	99.5%	99.7%	97.7%	98.7%	99.2%
% of population not protected	0.7%	0.1%	0.5%	0.3%	2.3%	1.3%	0.8%

No. of children under five protected	56,330	40,155	64,350	66,945	29,061	108,441	365,282
No. of pregnant women protected	9,808	6,813	13,104	10,431	4,872	19,835	64,863
No. of mosquito nets found	102,102	69,220	95,677	37,239	21,151	123,904	449,293
No. of children under 5 sleeping under a net	41,661	31,171	44,461	32,887	13,489	61,987	225,656
No. of insecticide sachets used	36,495	26,289	40,097	26,982	12,394	56,127	198,384
Average number of households sprayed per sachet	2.5	2.8	2.6	2.9	2.9	2.7	2.7
Number of spray operators	391	279	425	372	165	684	2316
Average number of households sprayed per spray operator per day	12	14	12	13	12	12	13
Average number of spray days	20	18	21	16	18	19	19

## 1.2. Result 2: Comprehensive Monitoring and Evaluation of the IRS Program Performed

**Strategy:** Ensure appropriate program activity monitoring, environmental compliance monitoring, and vector surveillance.

Table 7: Result 2 Indicators

Indicator	Q1 Target	Q1 Actual	Q2 Target	Q2 Actual	FY 2011 Target
Annual work plan developed and approved	1	1	0	0	1
IRS progress reports prepared and submitted	5	5	5	5	19
Number of district level digital maps prepared	12	12	12	25	40
Number of inspections done by supervisors per spray round	250	342	250	409	1,000
IEEs and/or SEAs completed as required	0	0	0	0	TBD
Percentage of washing bays and soak pits inspected	90%	100%	90%	90%	90%
Number of entomological surveys conducted	6	6	6	6	51
Number of susceptibility tests conducted	0	0	1	1	6
Number of wall bioassay tests conducted	150	168	150	138	600
Number of PSCs carried out	180	216	180	216	720

### Accomplishments this quarter:

#### *Environmental Assessment and Compliance*

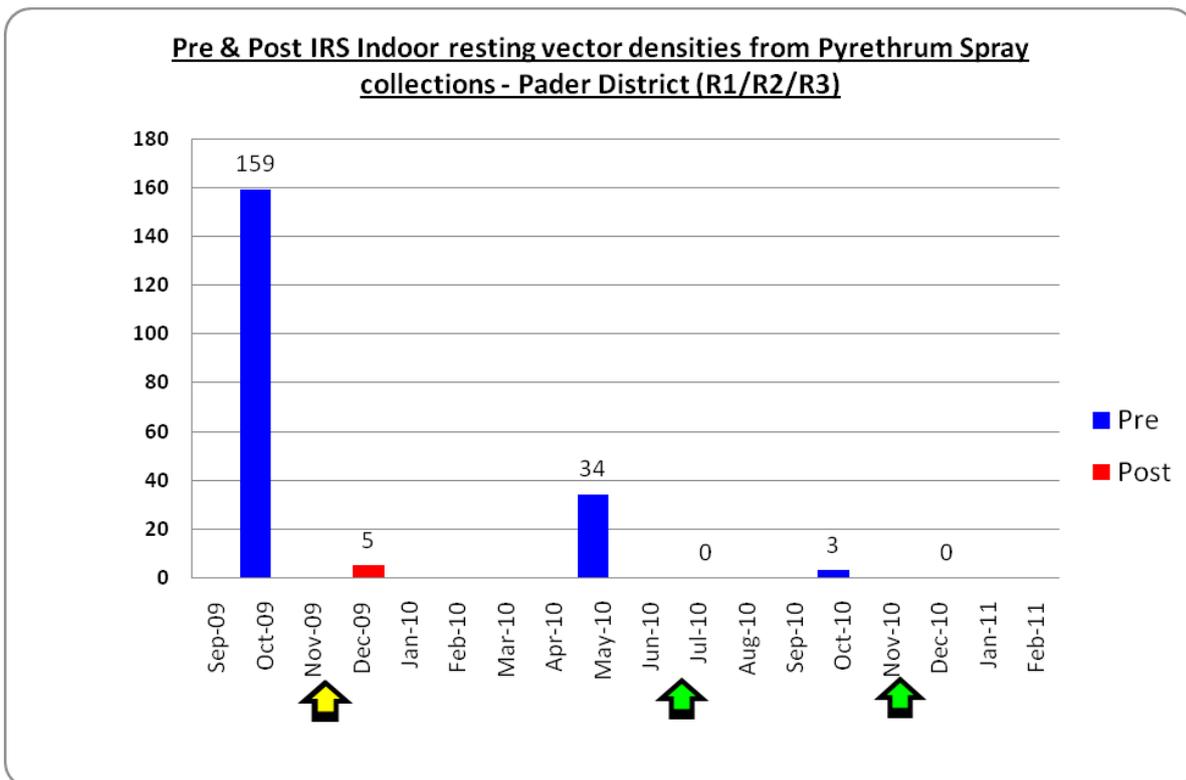
Environmental compliance activities in this quarter covered the six districts of Apac, Kole, Oyam, Amuru, Nwoya and Gulu. The activities included identification, verification, minor repairs and confirmation of stores and soak pits in preparation for the spray rounds and environmental compliance inspections. At the end of every spray round, inspections of all IRS stores and soak pits were conducted to ensure cleanliness and environmental compliance before leaving the premises.

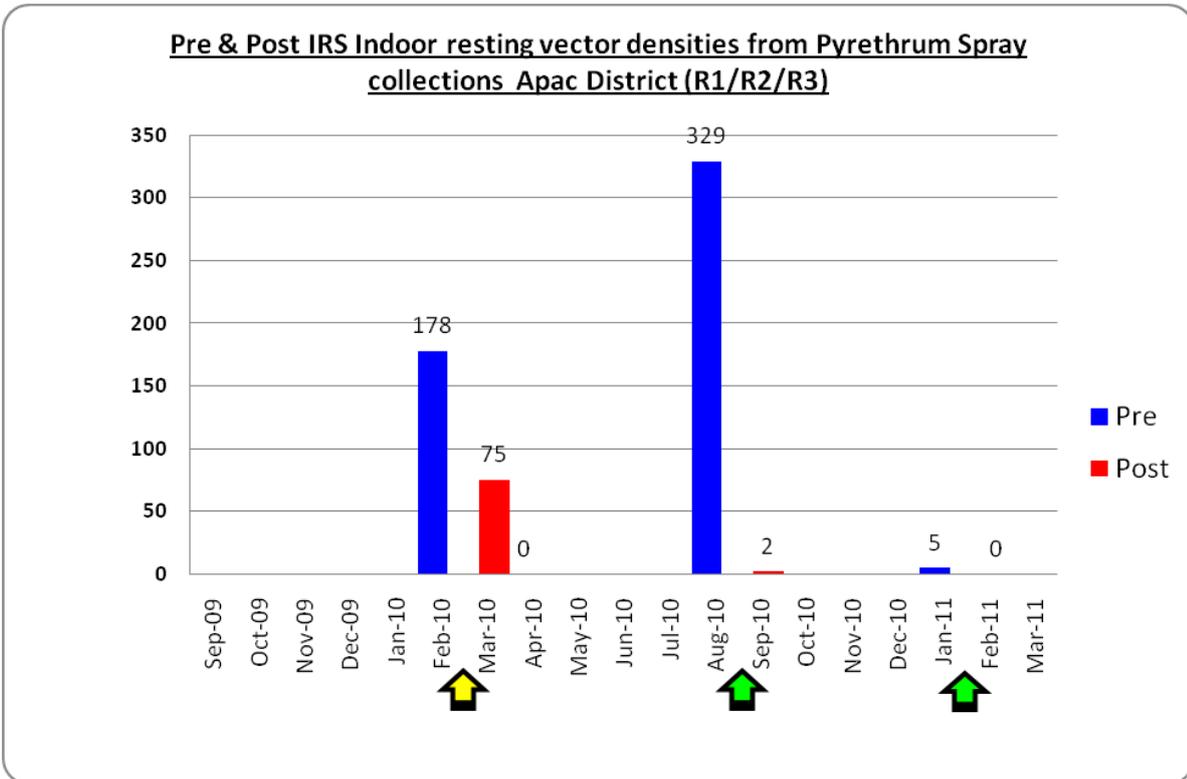
Environmental Compliance Inspections were designed to monitor PPE usage, triple rinsing, store maintenance, and safety of the community. A total of 260 environmental compliance inspections were conducted during this quarter by the Environmental Compliance Officer working together with the District Environmental Officers (DEO). The percentage of washing bays and soak pits inspected during the spray round is 90% (130 soak pits out of 144 were inspected). Table 8 below gives the detail on the number of inspections done per district:

Table 8: Environmental Compliance Details

**Entomological Monitoring**

Routine entomological monitoring was carried out in the months of January to March, 2011. Monthly IRS Pyrethrum Spray Collections (PSCs) were carried out in sentinel sites in districts of Kitgum, Pader and Apac. Results indicate a significant reduction in in-door resting vector mosquitoes as shown in the graphs below. Monthly wall bioassays were also conducted in Apac, Amuru and Pader districts. It was clearly observed that bendiocarb is effective up to a period of four months.



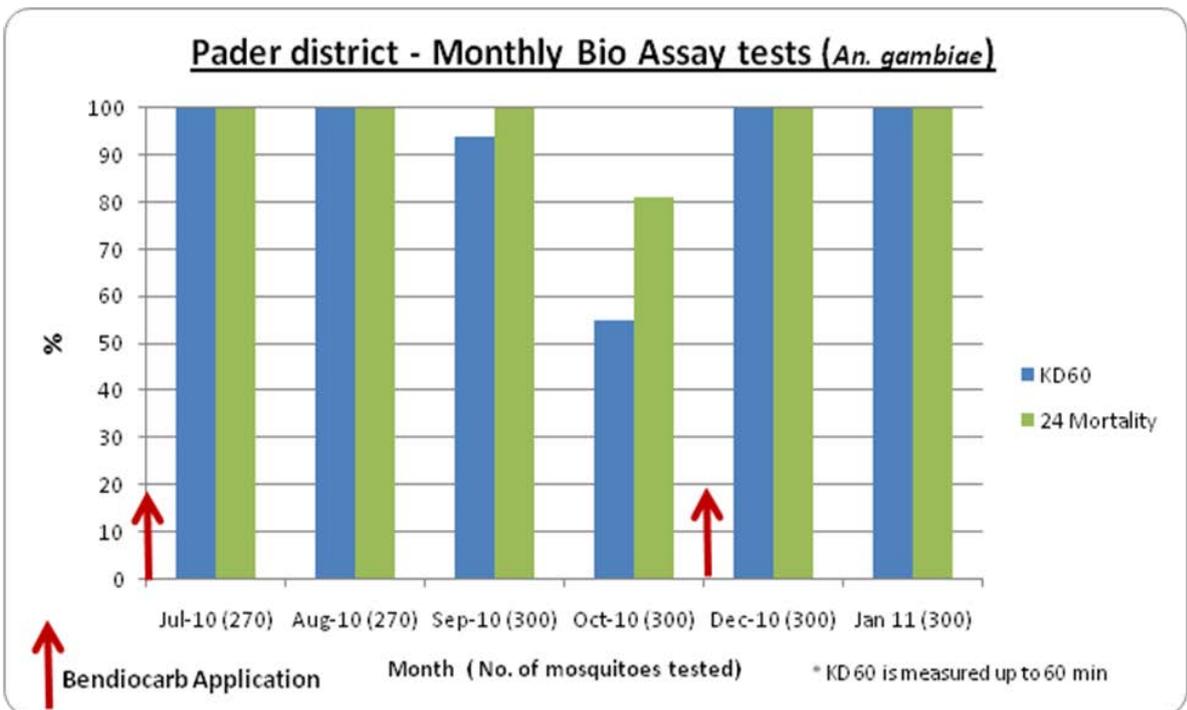


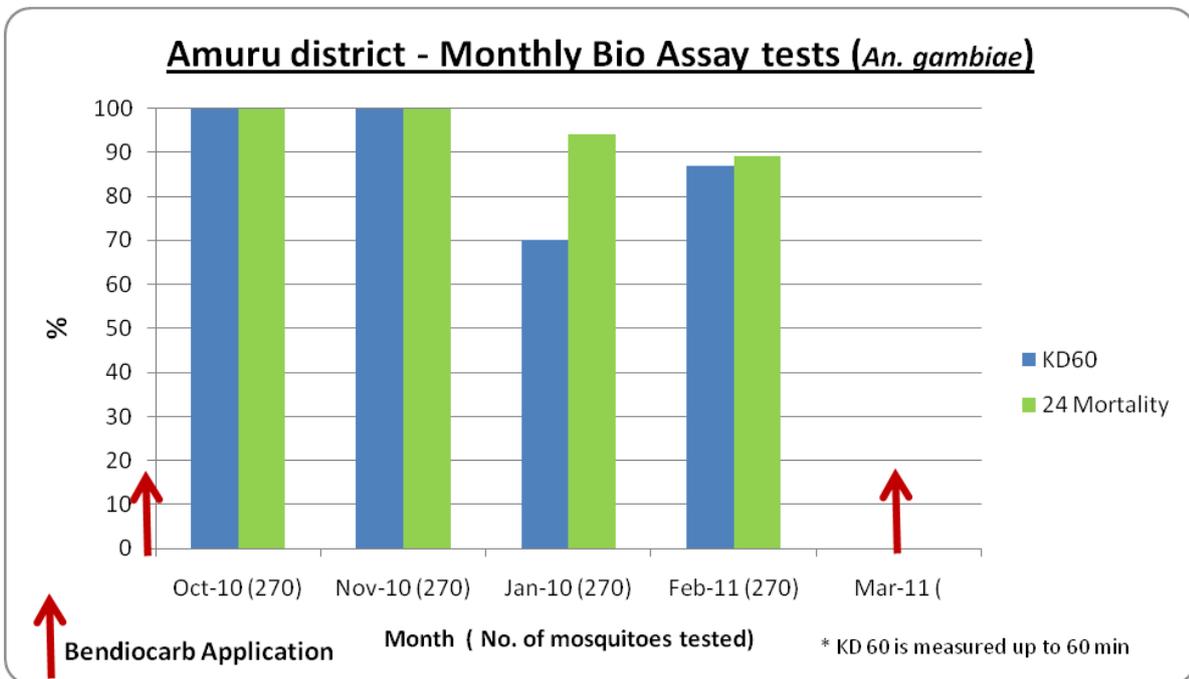
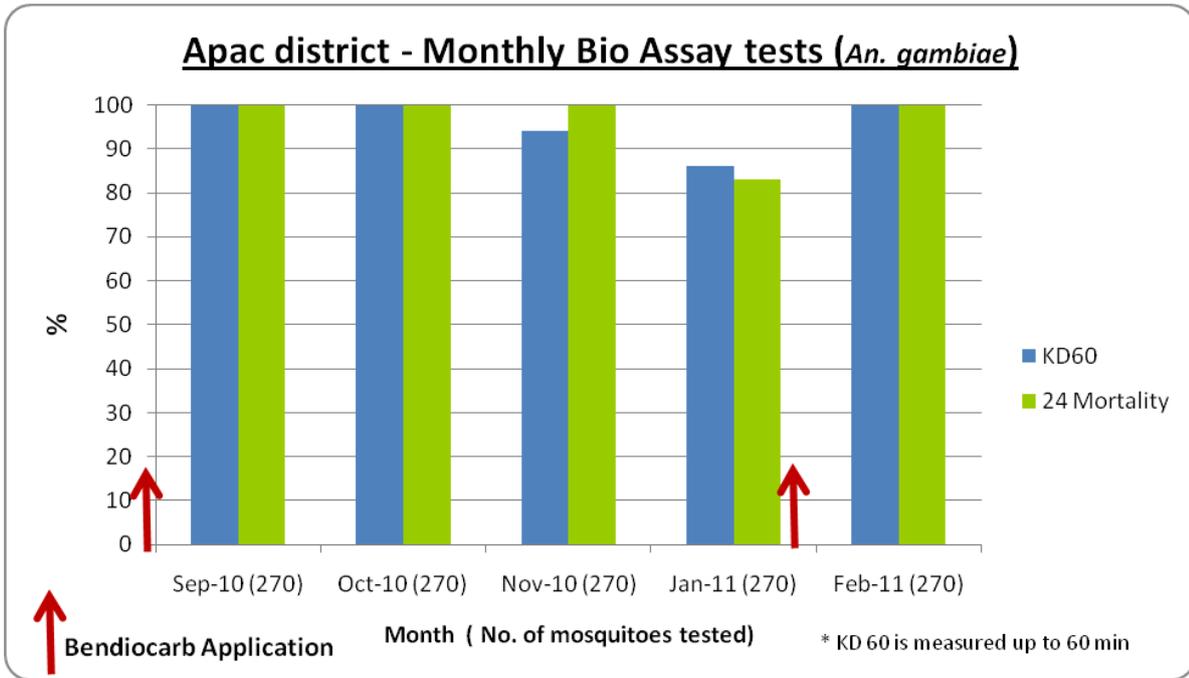
R1–Alpha Cypermethrin

R2 & R3 - Bendiocarb

**Vector species**

*An. gambiae* + *An. funestus*





**Vector Susceptibility Studies**

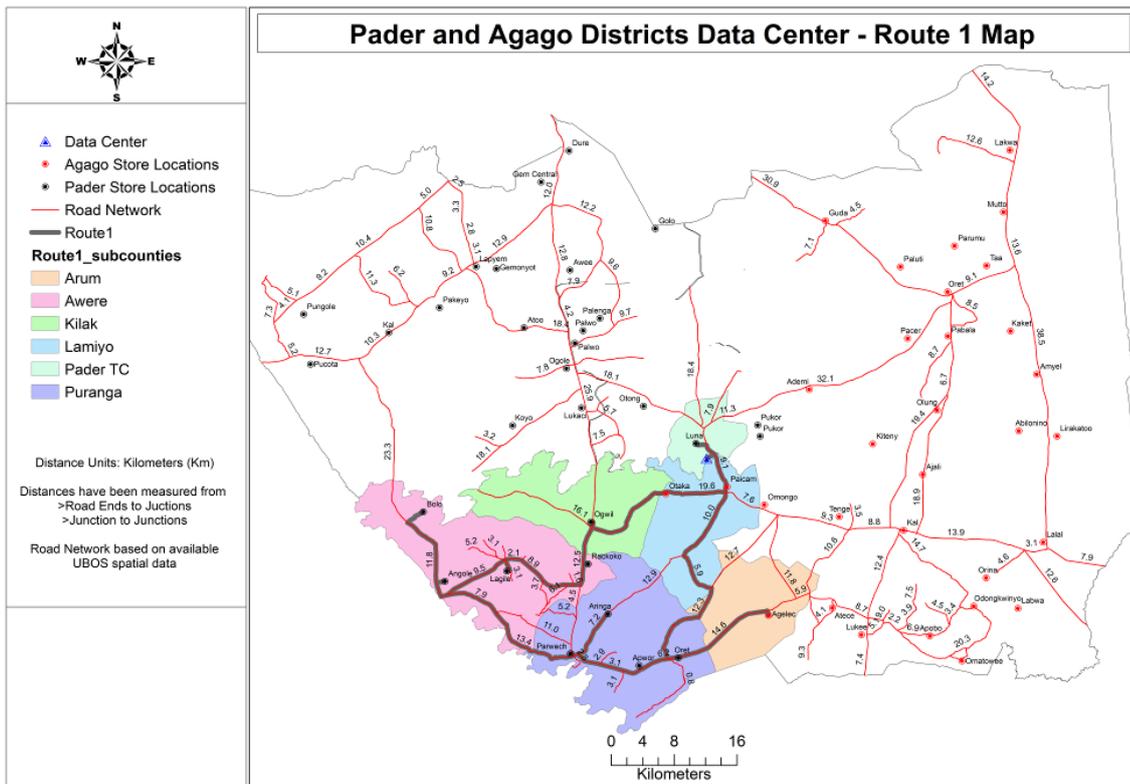
Vector susceptibility studies in the whole project area were carried out in the latter part of March 2011. Although it was planned to assess resistance status of vector mosquitoes to 7-8 currently used insecticides, due to the unavailability of adequate number of larvae /adult mosquitoes, we were able to test for Bendiocarb and Pirimiphos Methyl only. Preliminary results shows that vector mosquitoes are 100% susceptible for both insecticides based on 60 minutes knock down and 24 hour mortality rates.

**Insectary**

The project is still working with Gulu University to acquire quotations from the service agencies with-in a dead-line of eight weeks. If the quotations are not acquired by the specified deadline, the project will go for an alternative plan to set up the insectary.

**Geographic Information System (GIS)**

IRS results analytical maps were produced to aid in analyzing the project results. Road network distance maps in the project area were also produced to assist the logistics department in planning delivery of IRS supplies to parish stores and to assist in mapping the road network for data collectors as shown in below:



**Monitoring and Evaluation (M&E)**

The project has continued to produce daily data updates using its M&E system throughout the spray round. The data updates have made it possible to have real time data reporting which is provided to field coordinators to identify areas requiring quick intervention. This has greatly improved supervision and decision making. The data centers were maintained in the original district boundaries however the data was disaggregated per new district boundaries. The data centers used for data entry were availed by the districts.

**1.3. Result 3: National Capacity for Conducting IRS Developed**

**Strategy:** Improve the technical skills and capability of NMCP/MOH (national and district level) and other relevant government bodies including National Environment Management Authority (NEMA).

Table 9: Result 3 Indicators

Indicator	Q1 Target	Q1 Actual	Q2 Target	Q2 Actual	FY 2011 Target
IRS training module developed	0	0	0	0	1
Number of IRS and entomological monitoring plans developed and implemented	0	0	0	0	1
Number of national and district staff conducting the in-service training	0	0	0	0	225
Number of students trained in IRS	0	0	0	0	28

### Accomplishments this Quarter

A two days curriculum review workshop for the School of Entomology and Parasitology (SOEP) was held on January 17<sup>th</sup> -18<sup>th</sup>, 2011 at the Uganda IRS Kampala office. The workshop had three main objectives:

- To review the existing pre-service curriculum
- To develop an in-service training curriculum
- To develop a training and certification program for the private sector pest control operators on IRS

A total of 10 participants attended the workshop from Mulago Paramedical Training School, School of Medical Entomology, VCD/MOH, NMCP/MOH and Uganda IRS. Ray Beach the PMI/CDC entomologist who had visited Gulu on 14<sup>th</sup>-16<sup>th</sup> January 2011 also participated in the workshop. A follow-up meeting will be conducted in the coming quarter to finalize the curriculum review.

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## Project Management and Administration

### Accomplishments this Quarter:

#### *Human resources*

Two new staff members, Solomon Matata and Phillip Magezi joined the project team on February 7<sup>th</sup> and March 18<sup>th</sup>, 2011 respectively as District Store Managers.

#### *Administration*

The Gulu field office has suffered from an unstable power supply since the beginning of the project. Multiple attempts were made to identify the cause of this problem and resolve it, without success. It was eventually determined that the problem was beyond the means of the project to resolve, as it was apparently due to the public power supply feeding the office. As a result, a decision was taken to look for an alternative office location. This led to a new contract being signed. During the month of February the new facilities were made ready, and by the end of the month the entire move was completed successfully.

#### *Presentations*

Ranjith de Alwis, the Uganda IRS Senior Advisor made a presentation on the performance of the project at the PMI head office in USA on January 25<sup>th</sup>, 2011.

Dr. J.B. Rwakimari the Uganda IRS Chief Of Party, Mr. Michael Okia the Senior MOH Entomologist and David McGuire from Abt head office participated in the 6<sup>th</sup> RBM Vector Control Technical Working Group meeting on February 7<sup>th</sup> – 9<sup>th</sup> 2011 in Geneva, Switzerland. Dr. Rwakimari made a presentation on the status of IRS in Uganda.

**Disciplinary Measures**

Undisciplined spray personnel were discontinued from further participation in any project activities.

**Financial Update**

Uganda Indoor Residual Spraying Project						
<b>Budget and Expenditures for Year Two Quarter Two</b>						
Period: Jan - March 2011						
Contract No: AID-617-C-09-00001						
					Contract Cost	\$31,804,017
					Fixed Base Fee	\$954,121
					Award Fee	\$1,590,201
					Total Contract	\$34,348,339
					Obligation	\$23,461,645
Expenditures to Date by Line Item						
Line Item	Total Actual Expenditures Aug 2009 - Sept 2010	Total Estimated Costs for Year Two	Actual Expenditures (Oct 2010 - Dec 2010)	Actual Expenditures (Jan 2011 - Mar 2011)	Remaining Funds from Year Two Estimated Costs	Cumulative Expenditures to Date
Labor	\$710,546.95	\$872,411	\$182,714	\$194,312	\$495,385	\$1,087,573
Fringe	\$298,508.03	\$366,413	\$76,823	\$81,915	\$207,675	\$457,246
Overhead	\$234,527.55	\$255,591	\$54,014	\$55,345	\$146,232	\$343,887
Consultants - Fees/Travel/ODCs	\$53,023.09	\$49,193	\$536	\$0	\$48,658	\$53,559
Travel and Per Diem (Less Consultant Travel & ODCs)	\$244,181.72	\$39,022	\$28,399	\$45,309	-\$34,686	\$317,890
Allowances	\$220,490.77	\$245,457	\$38,650	\$72,718	\$134,088	\$331,859
Other Direct Costs	\$2,105,661.70	\$3,151,116	\$1,028,812	\$825,528	\$1,296,776	\$3,960,001
Equipment	\$373,924.70	\$51,038	\$12,933	\$4,856	\$33,249	\$391,713
Materials	\$4,511,553.69	\$6,764,517	\$1,472,415	\$3,418,197	\$1,873,905	\$9,402,166
Subcontracts	\$275,269.38	\$275,378	\$75,805	\$108,240	\$91,332	\$459,315
Other Indirect Costs	\$1,028,069.82	\$1,346,326	\$364,044	\$421,748	\$560,533	\$1,813,862
<b>Total Estimated Cost</b>	<b>\$10,055,757.40</b>	<b>\$13,416,460</b>	<b>\$3,335,146</b>	<b>\$5,228,167</b>	<b>\$4,853,147</b>	<b>\$18,619,071</b>
Fixed Base Fee (3%)	\$301,678.33	\$402,494	\$100,060	\$156,867	\$145,567	\$558,605
Award Fee (5%)		\$670,823	\$0	\$530,067	\$670,823	\$530,067
<b>Total Cost Plus Fixed Fee</b>	<b>\$10,357,435.73</b>	<b>\$14,489,777</b>	<b>\$3,435,207</b>	<b>\$5,915,101</b>	<b>\$5,139,470</b>	<b>\$19,707,743</b>
Total Expensed Funds					\$19,707,743	
Total Obligated Funds					\$23,461,645	
% Obligated Funds Expensed					84.00%	
Total Obligated Funds Remaining					\$3,753,902	
Total Base Fee					\$954,121	
Total Base Fee Billed					\$558,605	
Base Fee Remaining to be Billed					\$395,516	
Total Award Fee					\$1,590,201	
Total Award Fee Billed for Year One					\$530,067	
Award Fee Remaining					\$1,060,134	

**Reporting Requirements**

The Uganda IRS Project developed and submitted the following program documentation as contractually obligated:

1. Monthly Reports: January, February
2. End of Spray Reports: Apac/Oyam/Kole and Amuru/Nwoya/Gulu
3. Project Quarter 1 Report: Oct-Dec 2010

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## Successful interventions/ Innovative Approaches

1. A human resource database containing the profiles of all spray personnel was developed. The database will enable tracking of attributes like individual performance and discipline incidences. Bio data forms were completed by all recruited spray personnel and their photos taken. This data has already been fed in the database.
2. All the parishes in the various districts started spraying on the same day due to improved distribution of logistics.

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## Challenges/Constraints

- Some water sources dried up due to the prolonged drought resulting in water shortages. Depending on the situation, some extra costs were incurred in recruiting an extra person to fetch water for the IRS activities or facilitating the wash person to use a bicycle to fetch water to ensure that the IRS activities continued as normal.
- A security guard at Atopi store in Apac district was assaulted by suspected robbers. The incident was reported to police and investigations are underway.
- Incidences of misconduct are still reported among spray personnel. Below are some of the occurrences:
  - In Iceme-Aloni Oyam district, three spray operators and two team leaders were dismissed due to data forgery. In Bungatira sub-county Gulu district, a spray operator was found forging data;
  - In Paicho sub-county Gulu district, one of the dismissed team leaders and an LCI were campaigning against the IRS program;
  - A spray operator in Odek sub-county Gulu district was arrested for failing to account for one sachet of insecticide which was later discovered in his shorts;
  - Three storekeepers were dismissed for continued absenteeism/tardiness and one for drinking.
- There was a delay in implementation of the micro-planning meeting in Gulu due to a threatened boycott by the Health Assistants who were demanding involvement of all the 30 health assistants instead of the planned 17.
- The DVCO in Oyam district was continually interfering with IRS activities including recruitment of incompetent spray personnel and gross misconduct. Consequently, the DHO in Oyam district relived him of his duties and appointed the assistant VCO to coordinate IRS activities henceforth.
- Some IRS supervisors were soliciting for bribes before recruitment of spray personnel. Investigations were done and culprits prosecuted.
- Interference with the IRS program from some local leaders especially in the recruitment process.
- The election process interfered with the program as community members went to cast their votes. In Lalogi and Lakwana sub-counties in Gulu district, the Officer in Charge of Police stopped the spray operators' orientation exercise claiming it was interfering with the voter turn-up
- There was poor mobilization noticed in some parishes. Some LCI chairmen do not mobilize their communities for IRS forcing the team leaders to identify someone who can do the mobilization.

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## Lessons Learned and Recommendations

- Inspection of IRS stores after the collection of logistics at the end of every spray round is essential to ensure that the premises are kept clean and environmentally complaint.

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## Planned Activities for the Next Quarter

1. Spraying of Kitgum, Lamwo, Agago, Pader, Apac, Oyam and Kole districts which includes:
  - Micro-planning with the district health office
  - Procurement of required supplies
  - Entomological studies
  - Environmental compliance inspections
  - Logistical supplies to the parishes
  - Orientation of spray personnel
  - Actual spraying
2. Development of the national capacity to conduct IRS
  - Finalize SOEP curriculum