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UGANDA INDOOR RESIDUAL SPRAYING (IRS) PROJECT QUARTERLY PERFORMANCE REPORT JULY 1ST THROUGH SEPTEMBER 30TH, 2010



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UGANDA INDOOR RESIDUAL SPRAYING (IRS) PROJECT QUARTERLY PERFORMANCE REPORT

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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Acronyms

Abt	Abt Associates, Inc
BCC	Behavior Change Communication
CDC	Centers for Disease Control and Prevention
CDFU	Communications for Development Foundation Uganda
COP	Chief of Party
COTR	Contracting Officer's Technical Representative
DDHS	District Director of Health Services
DDT	Dichloro-Diphenyl-Trichloroethane
DEO	District Environment Officer
DHE	District Health Educator
DHI	District Health Inspector
DHO	District Health Officer
DHT	District Health Team
FAQ	Frequently Asked Questions
GIS	Geographic Information System
GoU	Government of Uganda
GPS	Global Positioning System
HHS	U.S. Department of Health and Human Services
IEC	Information, Education and Communication
IEE	Initial Environmental Examination
IR	Intermediate Result
IRS	Indoor Residual Spraying
LC	Local Council
M&E	Monitoring and Evaluation
MOH	Ministry of Health
MOP	Malaria Operational Plan
MOU	Memorandum of Understanding
NEMA	National Environment Management Authority
NMCP	National Malaria Control Program
PMI	President's Malaria Initiative
PMP	Performance Management Plan
PPE	Personal Protective Equipment
PSC	Pyrethrum Spray Collections
SEA	Supplementary Environmental Assessment
STTA	Short Term Technical Assistance
TA	Technical Assistance
TOT	Training of Trainers
USAID	U.S. Agency for International Development
WHO	World Health Organization
VCD	Vector Control Division

Executive Summary

This report presents the Uganda Indoor Residual Spraying (IRS) Project's progress in the fourth quarter of Year One (period covering July 1st through September 30th 2010). 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

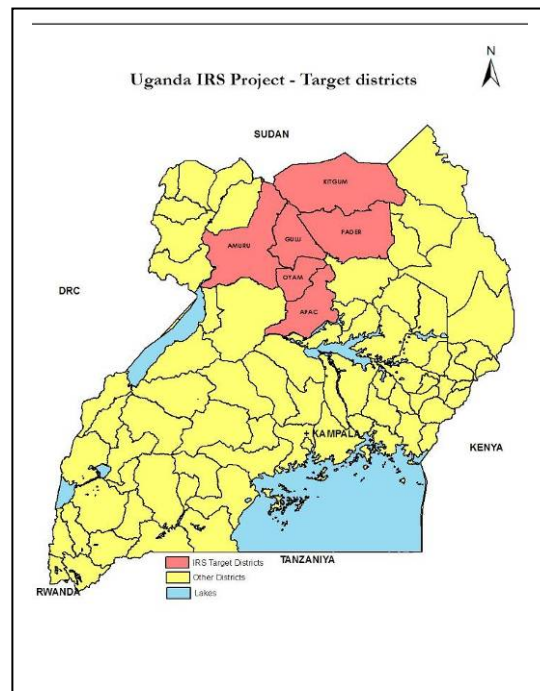
The purpose of the Uganda IRS Project is to achieve the President's Malaria Initiative (PMI) Uganda targets in indoor residual spraying. In particular, the Uganda IRS Project contributes to IR.8.1: Effective use of social sector services through three main objectives:

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

The goal of PMI is to reduce malaria-related mortality by 50% by the end of 2010 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) for Uganda 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 six priority districts: Apac, Amuru, Gulu, Oyam, Pader and Kitgum.

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 also 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 in support of IRS program campaigns and population sensitization under the direction of Abt technical staff.



Project Activities/Achievements

This quarter was extremely busy with preparation, implementation and monitoring of IRS activities in all the six project districts of Kitgum, Pader, Apac, Oyam, Gulu and Amuru. The original six district boundaries have been revised by the Government of Uganda, creating four new districts for a total of ten districts with effect from 1st July 2010. The project will be referring to the four new districts with effect from October 2010 for year two and onwards as follows; Kole, Nwoya, Lamwo and Agago created out of Apac, Amuru, Kitgum and Pader respectively.

Round five spraying in Kitgum and Pader districts commenced on June 11th 2010 and was concluded by August 2nd 2010 in Kitgum and August 17th 2010 in Pader. Spraying in the two districts took more time than expected due to a hold called on June 12th 2010 by NEMA pending the receipt of formal communication from NEMA authorizing the use of carbamates. This authorization was provided by NEMA and spray activities resumed on June 21st 2010. Round three spraying in Apac and Oyam districts began on August 23rd 2010 and was concluded by September 21st and September

11th, 2010 respectively. Amuru district commenced spraying on September 13th, 2010 and concluded by September 30th, 2010 while Gulu commenced spraying on September 6th, 2010 and concluded by September 30th, 2010. In order to conclude spraying by September 30th in Amuru and Gulu, additional spray operators were employed across the districts. District Vector Control Officers (VCOs) were also brought on board to boost supervision of the spray activities.

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	Quarter 1 Actual	Quarter 2 Actual	Quarter 3 Actual	Quarter 4 Actual	FY 10 Target	FY 10 Actual
Number of district level planning and introductory meetings conducted	4	8	4	6	24	22
Trained in IRS*	2,298	2,989	1,928	2,957	5,500	10,172
Number of IRS print materials disseminated	1,450	19,209	15,000	24,000	15,000	59,659
Number of community meetings held	40	47	6	48	94	141
Number of radio spots aired	500	690	600	1,360	3,200	3,150
Number of radio talk shows conducted	27	23	10	48	120	108
Number of community members sensitized on IRS	1,244	1,745	495	2,069	3,290	5,553
Number of districts sprayed	2	2	2	6	6	6
Number of households sprayed with IRS	330,663	262,164	240,715	847,469	1,546,618	1,681,011

*Number trained includes clinicians, environmental officers, DHT members and spray personnel i.e. spray operators, team leaders, supervisors, store keepers and wash persons. The training was refresher training.

Accomplishments this quarter:

Procurement and Logistics

A total of 234,320 sachets of Bendiocarb WP 80% insecticide were procured for use in Apac, Oyam, Gulu and Amuru. A total of 700 pumps and associated spare parts were also procured. Most of the required Personal Protective Equipment (PPE) were in stock and were distributed in the districts; items newly procured included 3,000 haversacks and 2,000 face shields.

IEC/BCC

The IEC/BCC activities were carried out by project partner CDFU. In this quarter, IEC/BCC activities used IEC committees and radio as a means of communication. IRS committees were formed to spearhead community mobilization and sensitization on IRS and to assist in monitoring of spray activities at the community level. The IRS committees consist of 11 members from local

leaders including LC I & III chairmen, Secretary of Health, sub-county chief, women representatives, youth representatives, religious leaders and centre head teachers. IRS committees were formed in each sub-county in the four districts of Apac, Oyam, Amuru and Gulu. In Apac, a special IRS committee was formed to address potential issues and concerns raised by the organic farmers. A total of 48 committees were formed in the four districts. The committees' duty is to mobilize and sensitize community members at all levels down to the Parish level on IRS through community meetings and the dissemination of IRS print materials. The committee members had a one-day orientation meeting in which they developed a work plan detailing how they would reach and disseminate IRS IEC/BCC communications to sub-county populations. Each district held two weekly radio talk shows from two local radio stations which were used to sensitize the community pre-, during and post- IRS exercise. Radio spots messages were also aired to reinforce the radio talk shows. Some pockets of resistance to the spray exercise were observed in some sub-counties in Gulu district, notably sub-counties of Paicho, Lakwana, Bungatira and Lalogi. The organic farmers were concerned that their produce would not be marketable. Others were politically oriented just for the sake of derailing a government program and hoping to achieve political gains. This was addressed by reformatting the radio talk shows to respond to the reported issues. Local political leaders like the LCIII and RDC were successfully engaged to address the resistance. The table below provides details of the IEC/BCC activities conducted during the quarter.

Table 3: IEC Activities

District	IEC committees community sensitization meetings		Radio spots	Radio talk shows	IEC materials distribution	
	No. of Meetings	Participants			Community Leaflets	Leaders Factsheets
Apac	16	335	400	14	5,000	1,000
Oyam	8	939	400	14	5,000	1,000
Amuru	8	275	280	10	5,000	1,000
Gulu	16	520	280	10	5,000	1,000
Total	48	2,069	1,360	48	20,000	4,000

Spraying Operations

Micro-planning

Prior to the micro-planning meetings, the spray reports of the previous spray round were disseminated to the district technical teams. In Apac and Oyam districts the dissemination of the round two reports were carried out on July 8th and July 9th, 2010 respectively and thereafter the IRS micro-planning meetings were held. In Amuru and Gulu districts the IRS micro-planning meeting was held on August 19th and August 5th 2010 respectively. The micro-planning in Amuru was delayed due to the district staff being involved in other activities with other health program partners. The main objective of the micro-planning meetings was to involve key stakeholders in planning sessions of the IRS program. During these meetings the district officials were thanked for their contribution towards the success of the previous spray round. The human resource requirements for the upcoming spray round were computed and IRS store locations identified. The number of parish level stores was reduced to a manageable number for effective and efficient supervision and smooth dispatch of logistics. The use of bicycles as a means of transporting spray operators in the whole district was welcomed by the district officials. However, a few sub-counties in Amuru district used trucks due to the exceptionally wide distance from the store to the villages. The best performing supervisors in the previous spray round were recognized while the poor performers were discontinued from involvement in IRS activities. The meetings were facilitated by Abt staff, MOH and CDFU with participants including IRS sub-county supervisors, DHT members and environmental officers.

Training of Trainers (TOT)

A two day TOT refresher workshop on IRS was held for all the IRS supervisors and DHT members in the four districts of Apac, Oyam, Amuru and Gulu. In Gulu the workshop was held at St. Monica from August 5th to 6th, 2010. The workshop for Amuru was also held at St. Monica on August 19th to 20th 2010.

In Apac and Oyam districts, the TOT was carried out on July 27th and 28th 2010 and July 29th and 30th 2010 respectively. The same participants in the micro-planning attended the TOT. A total of 121 participants took part in the training. Of these, 13% (16) were female. The workshops refreshed the minds of participants on IRS approaches on data management, spray techniques and environmental compliance. The workshops also came up with a plan for IEC strategies. The sessions were facilitated by staff from Abt, CDFU and the MOH.

Table 4: Training of Trainers

District	Category	Male	Female	Total
Apac	Supervisors	15	0	15
	DHT	14	0	14
	EO	1	0	1
Total		30	0	30
Oyam	Supervisors	17	0	17
	DHT	9	5	14
	EO	0	0	0
Total		26	5	31
Amuru	Supervisors	8	1	9
	DHT	15	5	20
	EO	0	0	0
Total		23	6	29
Gulu	Supervisors	13	3	16
	DHT	13	2	15
	EO	0	0	0
Total		26	5	31
Grand Total		105	16	121

Recruitment and Training for Spray Teams

Spray personnel used in the previous spray round were selected based on their performance and conduct in the previous round. New recruits were selected on the basis of their current participation in local health activities or involvement in other community activities. Emphasis was put on selection of spray personnel who were representatives in their communities. Members of Village Health Teams (VHTs) were targeted as their status within the community assists in community-level acceptance of IRS and facilitates successful implementation of the program. Literacy and numeracy were key prerequisites for recruitment. Spray personnel include supervisors, team leaders, spray operators, wash persons, and storekeepers. Additional spray operators were recruited in Amuru (100) and Gulu (75) districts in order to complete spraying in the districts by September 30, 2010.

The three-day training of spray personnel on IRS-related topics in Apac, Oyam, Gulu and Amuru districts was conducted by the VCOs and IRS supervisors trained in the TOT. The involvement of VCOs ensured the presence of skilled trainers and proved to be effective and efficient in achieving quality training of the spray personnel. The total number of spray personnel trained includes spray operators, store keepers, team leaders and wash persons. The spray personnel were taught basic skills associated with IRS, including basic spraying techniques, team management, environmental compliance and safety, and data management. The additional 175 spray operators recruited later in Gulu and Amuru districts were also trained. The number of participants trained per district is inset in table 5.

Table 5: Spray Personnel Training

District	No. of Participants	Male	Female
Apac	889	811	78
Oyam	546	509	37
Amuru	759	611	148
Gulu	704	621	83
Total	2,898	2,552	346

Storekeepers Training

In Oyam and Apac districts, the store keepers’ training took place on August 5th and 6th 2010 respectively. Amuru store keepers were trained on August 26th 2010 while Gulu trained on August 12th 2010. A total of 145 store keepers were trained in the four districts of which the majority, (79%) were females. The store keepers participated in the spray operators’ training as well. The table below summarizes the total number of storekeepers trained per district:

Table 6: Store keepers training

District	No. of Participants	Male	Female
Apac	46	7	39
Oyam	25	9	16
Amuru	39	6	33
Gulu	35	9	26
Total	145	31	114

Clinician Training on insecticide poisoning management

Health workers in Apac, Oyam, Gulu and Amuru were oriented on the health and environmental concerns of the Carbamate insecticide. A total of 59 clinical officers from health centers II, III and IV and hospitals as well as DVCOs were trained. The training conducted by MOH staff raised the awareness of the health workers on the toxicity of the Carbamate insecticide and management procedures in case of chemical poisoning.

Launch of Spraying

Spraying in Kitgum took an average of 22 days involving 689 spray operators. The insecticide usage rate in Kitgum was an average of 2.7 houses per sachet. The average number of houses sprayed per spray operator per day was 10 houses. In Pader, spraying took an average of 26 days with a total of 699 spray operators. The insecticide usage rate in Pader was an average of 2.8 houses per sachet. The average number of houses sprayed per spray operator per day was 10 houses. A total of 343,118 households were found in Kitgum and Pader of which 337,393 households were sprayed (98.3% coverage). The total population found was 1,146,629 of which 1,132,756 (98.8%) were protected after completion of IRS activities.

In Apac spraying took an average of 21 days involving 694 spray operators. The insecticide usage rate was an average of 2.5 houses per sachet with each spray operator spraying an average of 11 houses per day. In Oyam the spray activities took on average 24 days with a total of 443 spray operators. The insecticide usage rate was an average of 2.5 houses per sachet with each spray operator spraying on average 10 houses per day. A total of 270,097 households were found of which 268,823 (99.5%) were sprayed. The total population was 761,101 of which 757,297 (99.5%) were protected after IRS.

In Amuru spraying was done in the shortest time ever with an average of 16 spray days involving 532 spray operators. The insecticide usage rate was an average of 3.0 houses per sachet with each spray operator spraying an average of 13 houses per day. Gulu spraying took an average of 21 days involving 549 spray operators. The insecticide usage rate was an average of 2.7 houses per sachet with each spray operator spraying an average of 12 houses per day. All six districts surpassed the target of 85% coverage as shown in the summary table below:



Spray operators crossing the river Nile to access hard to reach villages in Amuru district.

Table 7: Summary of IRS Output Indicators for the six districts

Indicator	Kitgum	Pader	Apac	Oyam	Amuru	Gulu	Total
No of districts sprayed	1	1	1	1	1	1	6
Total households	159,750	183,368	164,105	105,992	107,488	136,581	857,284
Households fully sprayed	155,075	180,070	158,543	101,860	105,710	133,479	834,737
Households partly sprayed	1,116	1,132	4,943	3,477	947	1,117	12,732
Total households fully and partly sprayed	156,191	181,202	163,486	105,337	106,657	134,596	847,469
Households not sprayed	3,559	2,166	619	655	831	1,985	9,815
% of households partly or fully sprayed	97.8%	98.8%	99.6%	99.4%	99.2%	98.5%	98.9
% of households not sprayed at all	2.2%	1.2%	0.4%	0.6%	0.8%	1.5%	1.1%
Total population	534,233	612,396	465,120	295,981	357,675	441,702	2,707,107
Total population protected	522,601	610,155	463,384	293,913	351,965	437,182	2,679,200
Total population not protected	11,632	2,241	1,736	2,068	5,710	4,520	27,907
% of population protected	97.8%	99.6%	99.6%	99.3%	98.4%	99.0%	99.0%
% of population not protected	2.2%	0.4%	0.4%	0.7%	1.6%	1.0%	1.0%
No. of children under five protected	111,135	138,927	88,874	57,367	83,077	91,312	570,692
No. of pregnant women protected	14,609	22,819	12,271	8,599	13,200	15,420	86,918
No. of mosquito nets found	99,343	138,189	129,079	65,470	29,818	76,556	538,455
No. of children under 5 sleeping under a net	66,352	94,443	53,739	29,002	24,814	39,197	307,547
No. of insecticide sachets used	58,249	64,594	66,185	42,470	35,797	50,587	317,882
Average number of households sprayed per sachet	2.7	2.8	2.5	2.5	3.0	2.7	2.7
Number of spray operators	689	699	694	443	532	549	3,606
Average number of households sprayed per spray operator	10	10	11	10	13	12	11
Average number of spray days	22	26	21	24	16	21	22

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

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

Table 8: Result 2 Indicators

Indicator	Quarter 1 Actual	Quarter 2 Actual	Quarter 3 Actual	Quarter 4 Actual	FY 10 Target	FY 10 Actual
Annual work plan developed and approved	1	0	0	0	1	1
IRS progress reports prepared and submitted	4	4	4	4	17	16
Number of district level digital maps prepared	6	8	8	12	12	34
Number of inspections done by supervisors per spray	0	235	378	574	1,000	1,187

round						
IEEs and/or SEAs completed as required	0	1	0	0	1	1
Percentage of washing bays and soak pits inspected	96%	95.9%	73.5%	100%	90%	91.4%
Number of entomological surveys conducted	4	6	4	10	16	24
Number of susceptibility tests conducted	0	4	2	0	6	6
Number of wall bioassay tests conducted	0	0	0	188	210	188
Number of PSCs carried out	120	216	144	288	1,080	768

Accomplishments this quarter:

Environmental Assessment and Compliance

The environmental assessment and compliance activities in this quarter covered all the six districts of the project. The quarter started with the Abt Environmental Officer and IRS Advisor attending a workshop on Environmental Compliance in Kisumu, Kenya. In the course of the quarter, the project was visited by Susan Anderson from EMACB, USA. She spent 3 working days in the field accompanied by the COTR. They were able to see IRS teams starting off, spraying and washing up in various sites. Susan recommended the introduction of a layer of charcoal in the soak pits and placement of a polythene sheet on the washing bay under the first barrel to avoid environment contamination with splashes of insecticide as the spray operators tip the insecticide remains from the field into the barrel during the triple rinsing process.

These recommendations will be put into place in upcoming spray rounds of first quarter of year two.

Soak pits and bath shelters

The old soak pits and bath shelters used in the previous spray round were rehabilitated for reuse in the six districts. A few new soak pits and bath shelters were sited and constructed. All the soak pits and bath shelters were inspected and verified for compliance before use. The table below outlines the details of the soak pits per district:

Table 9: Soak pits

District	Oyam	Apac	Gulu	Amuru	Kitgum	Pader	Total
No. of Soak pits	22	44	34	40	59	62	261
New soak pits	4 (18%)	36 (82%)	23 (68%)	10 (25%)	51 (86%)	51 (82%)	175 (67%)
Old soak pits	18 (82%)	8 (8%)	11 (32%)	30 (75%)	8 (14%)	11 (18%)	86 (33%)

Stores

IRS stores were verified and confirmed in all the 6 districts before logistics were delivered. Presently, across all project districts stores are located at the parish level. In the districts of Oyam, Amuru and partly in Apac and Gulu most of the identified and verified stores were the same stores used in the previous spray round. Safety measure appliances comprising of a polythene sheet, spillage kit, warning signs and First Aid Kits were placed at each store during the quarter. The spillage kit included a bucket full of sand and shovels meant for both fire fighting and floor cleaning incase of insecticide spillage in the stores. Most of the identified new stores required some degree of repair. In addition to Gulu, Amuru and Kitgum, the districts of Agago and Kole have also provided central district stores. Details are outlined in the table below:

Table 10: IRS Stores

<i>District</i>	Oyam	Apac	Gulu	Amuru	Kitgum	Pader	Total
<i>No. of stores</i>	22	44	34	40	59	62	261
<i>New stores</i>	4 (18%)	33 (75%)	19 (56%)	24(60%)	49 (83%)	49 (79%)	178 (68%)
<i>Old stores</i>	18 (82%)	11 (25%)	15 (44%)	16 (40%)	10 (17%)	13 (21%)	83 (32%)
<i>Repaired stores</i>	2 (9%)	22 (50%)	2 (6%)	2 (5%)	9 (15%)	15 (24%)	52 (20%)

Incineration of IRS waste

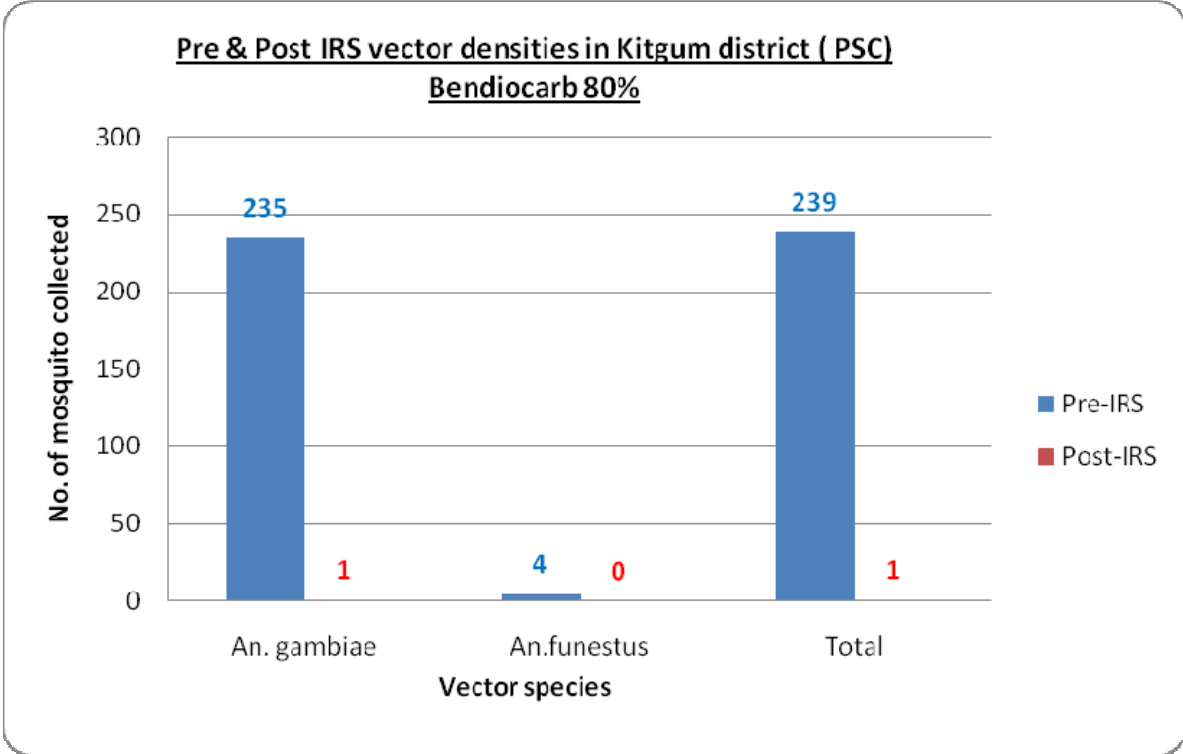
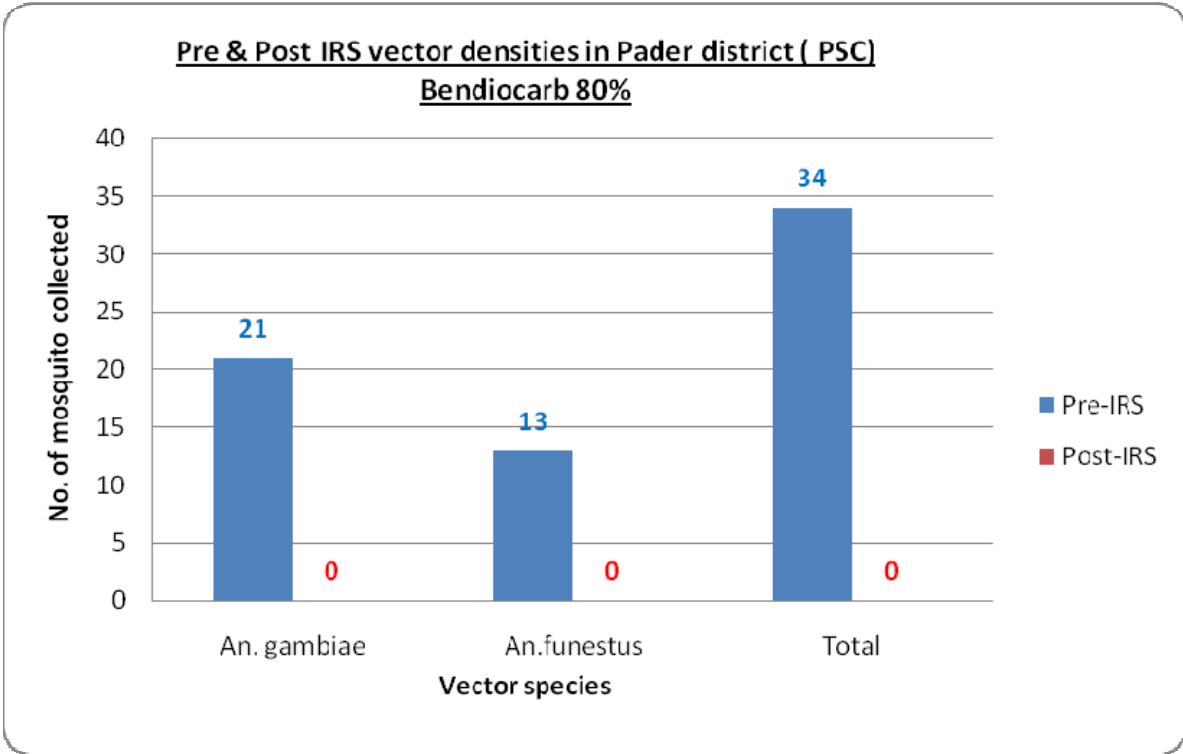
The IRS empty sachets and nose and mouth masks from Kitgum and Pader were incinerated using Gulu Hospital incinerator.. The Gulu incinerator broke down as a consequence solid wastes from Apac and Oyam have been sorted and stored in the central store pending disposal and incineration in Nakasongola Military facility.

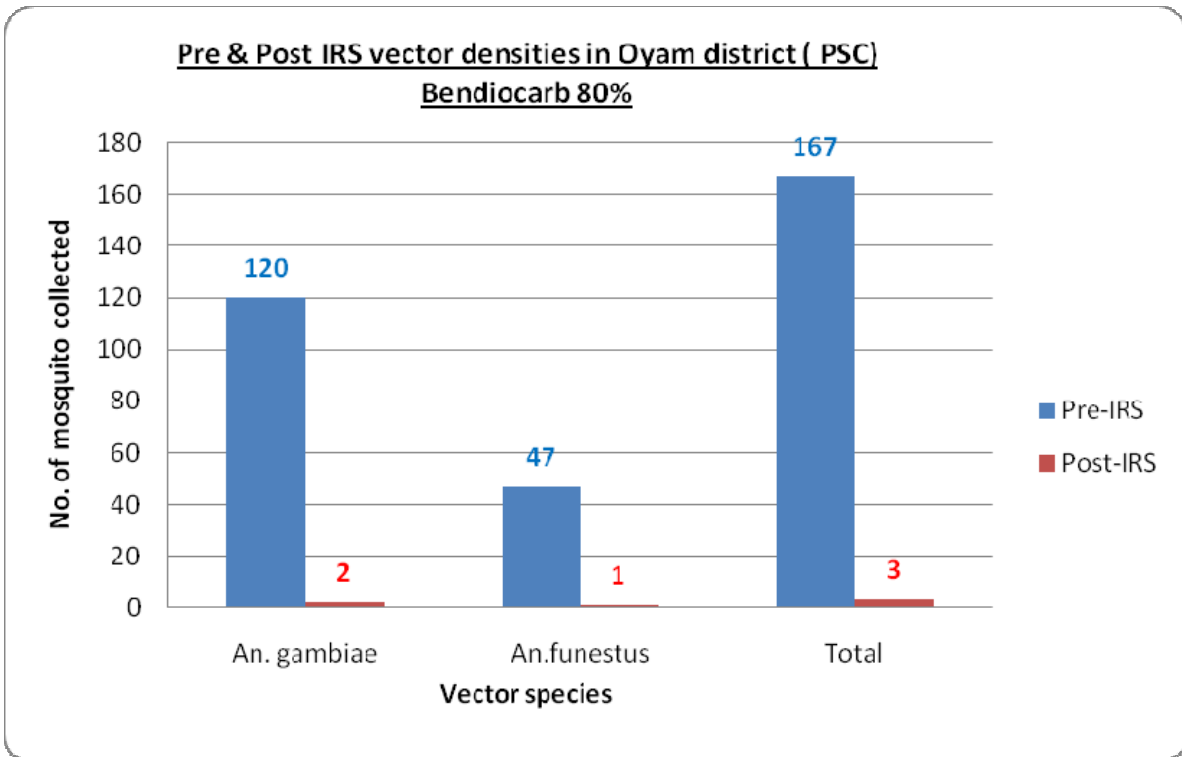
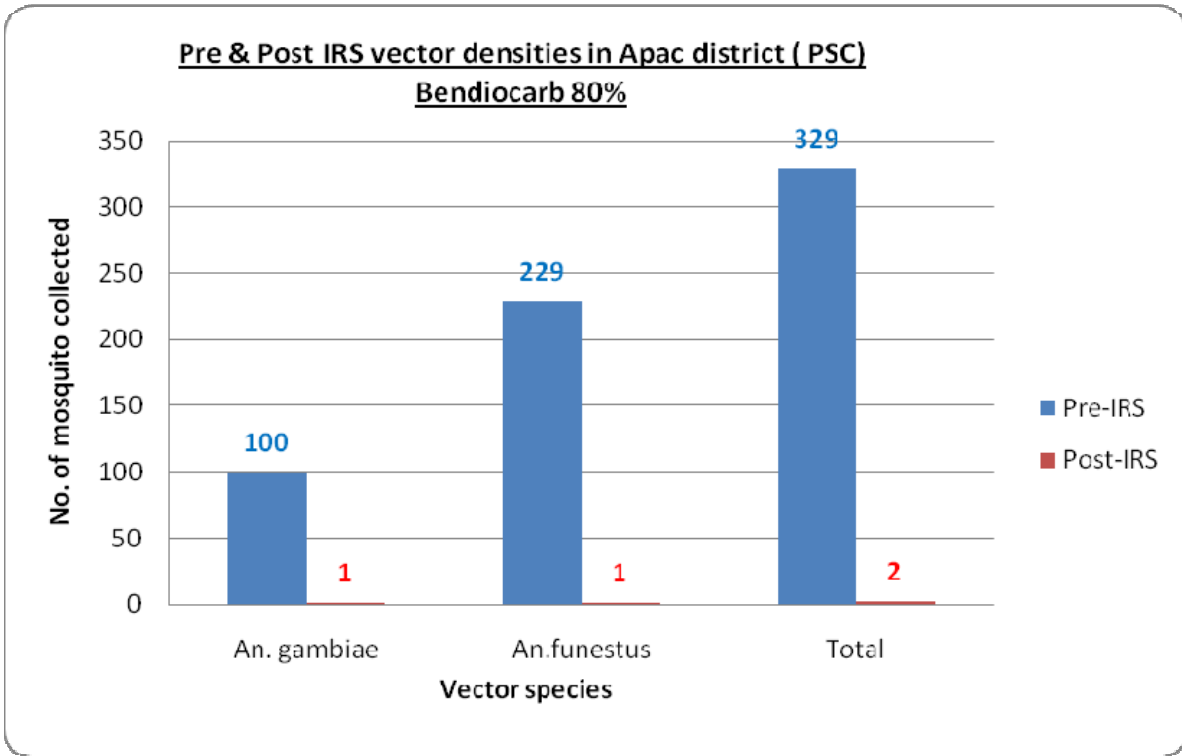
Environmental Compliance Inspections

The support supervision for Environmental Compliance was designed to monitor PPE usage, triple rinsing, IRS store maintenance, safety of the community and payment to contractors upon completion of repairs to soak pits. A total of 522 environmental compliance inspections were conducted during this quarter by Abt’s Environmental Officer working together with the district Environmental officers. Each soak pit was inspected twice. PPEs were regularly cleaned and correctly used by all the IRS teams and the soak pits were well constructed and well maintained with warning signage displayed. Triple rinsing, preparation of houses for spraying, spraying and bathing of IRS teams after work were all well done.

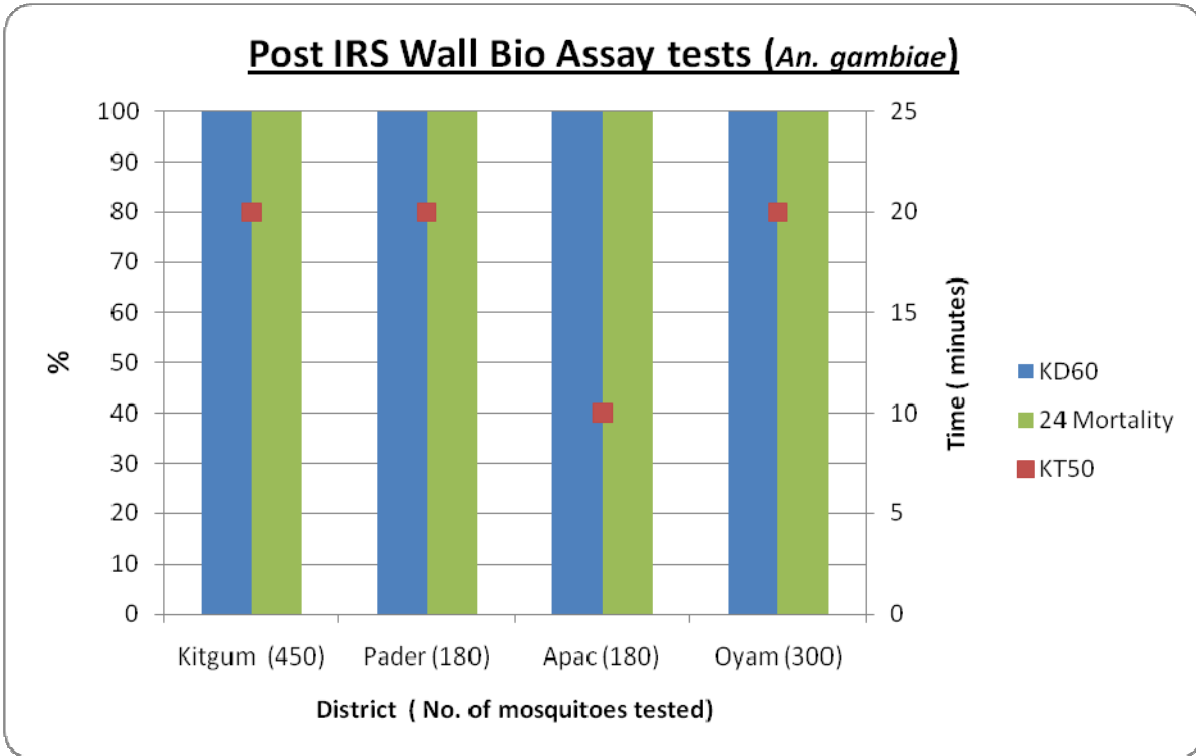
Entomological Monitoring

During this quarter, Pre- and Post-IRS Pyrethrum Spray Collections (PSC) were carried out in sentinel sites in 3 sub-counties in each of the six districts, with the exception of Post- IRS PSC in Gulu and Amuru, which for timing purposes will be conducted during the first month of quarter one of Year Two. It was observed that after the introduction of Bendiocarb, Post- IRS indoor resting vector mosquito densities were greatly reduced in Kitgum, Pader, Apac and Oyam districts. Post-IRS collections in Amuru and Gulu districts are yet to be done as the spray round was completed in the last week of September, 2010.

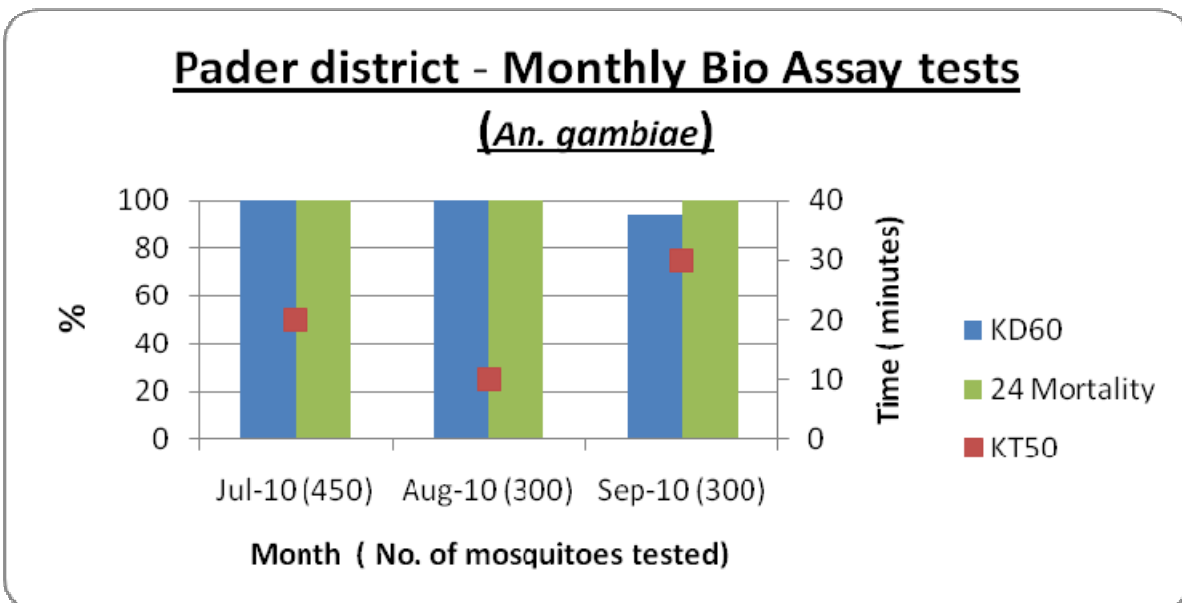




Wall bio assays were carried out in each district 2-3 weeks after Bendiocarb spraying. Results of Kitgum, Pader, Apac and Oyam are shown below. All these tests were done using wild caught vector mosquitoes.

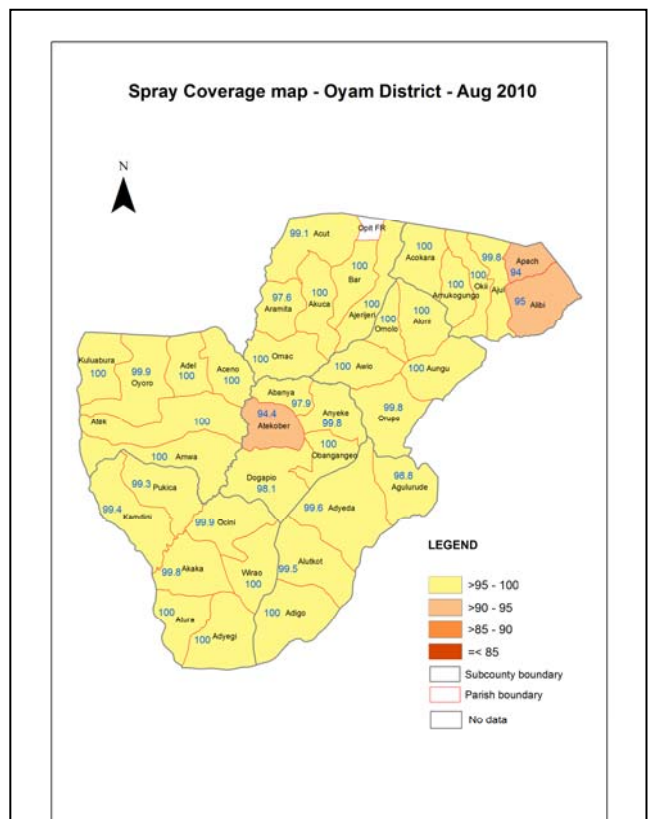
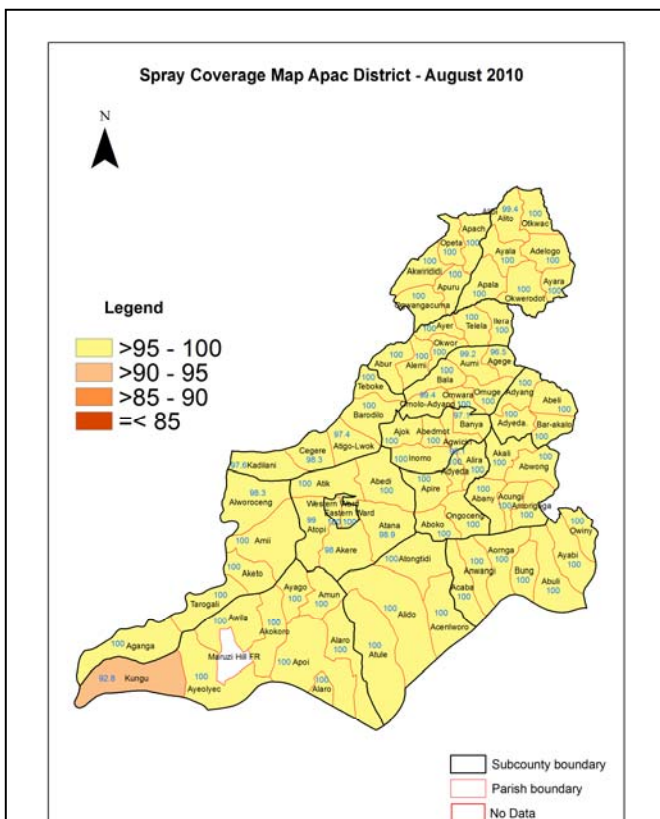
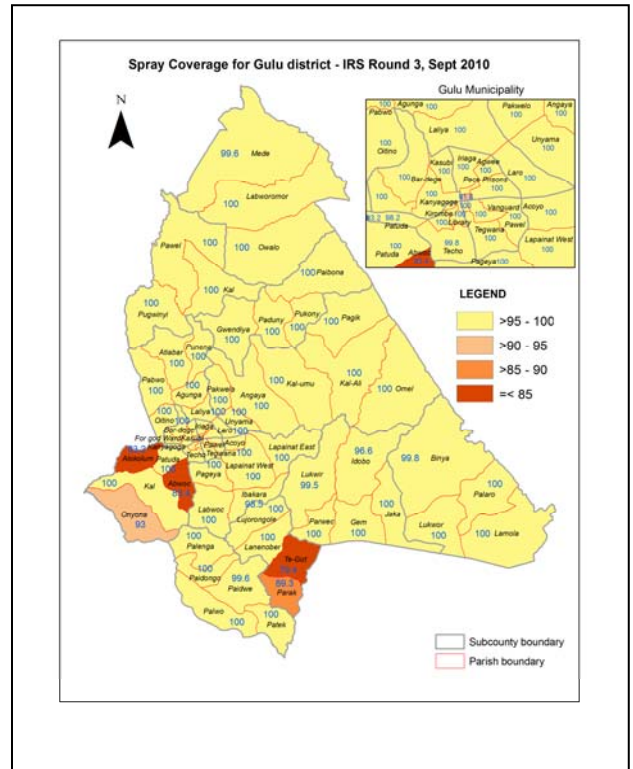
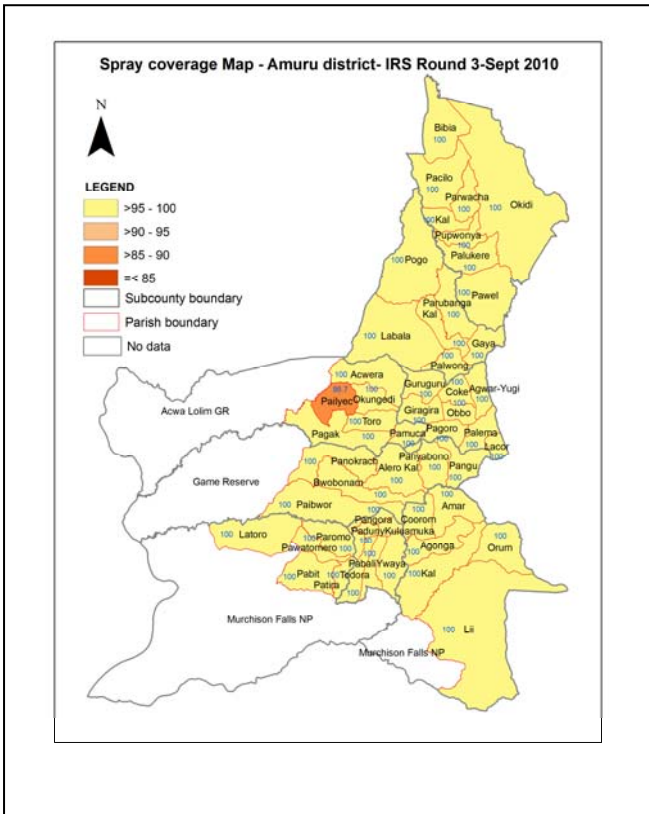


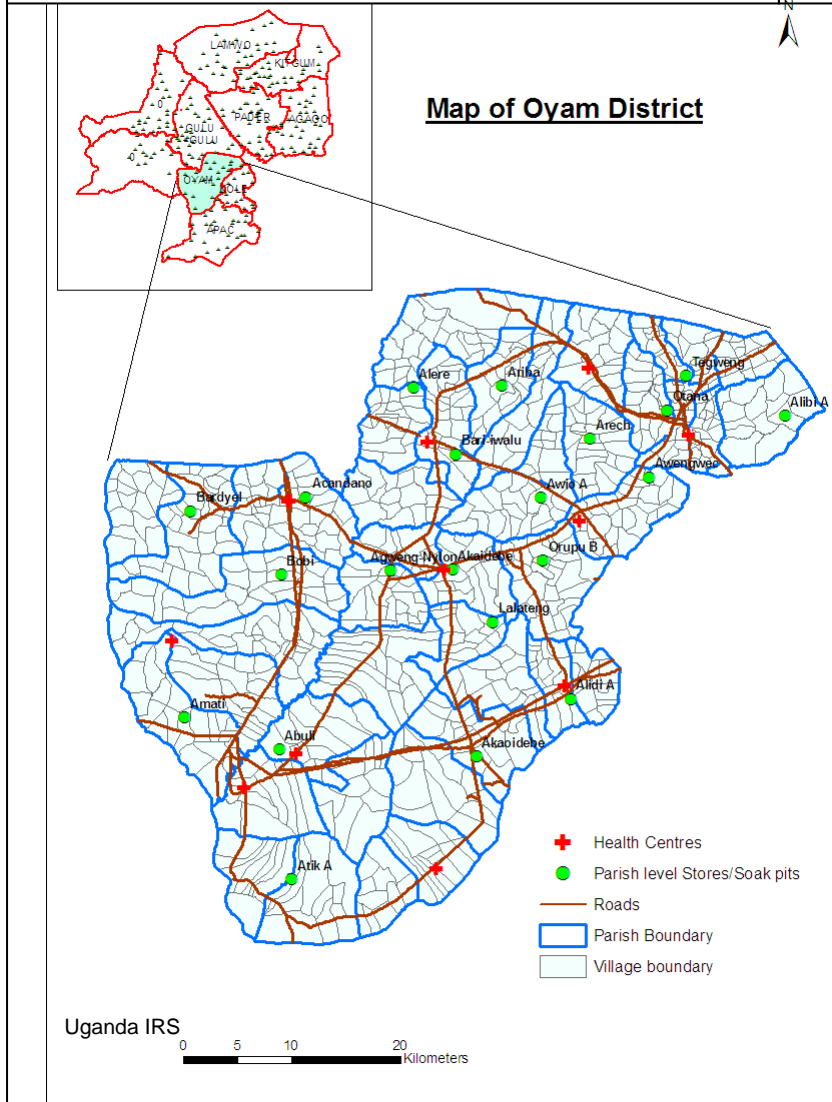
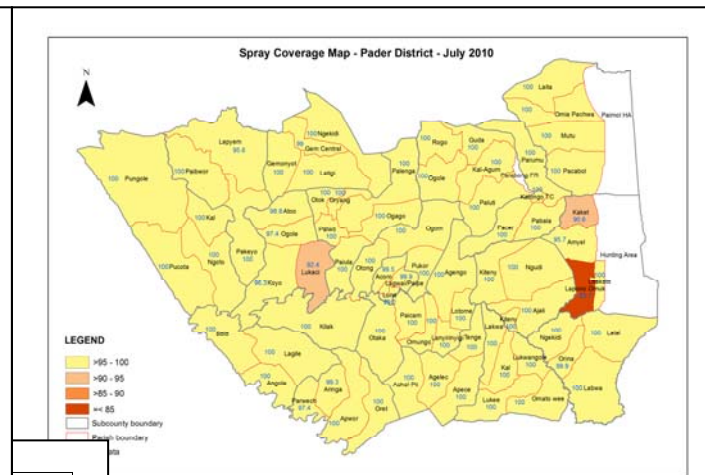
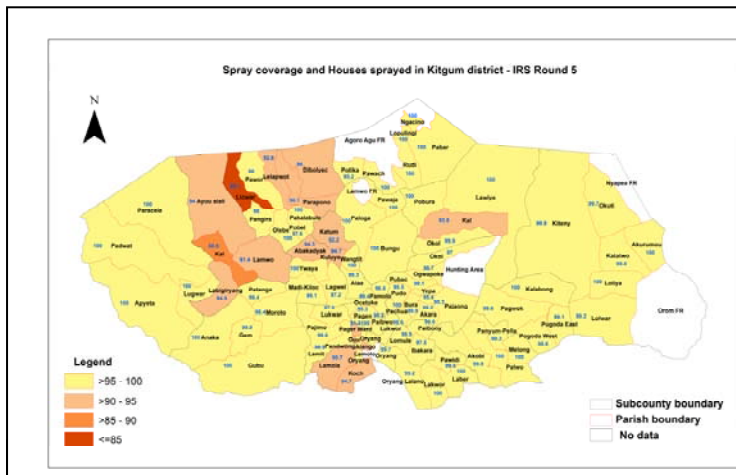
100% mortality within 24 hours and 100% knockdown (KD60) was observed in all districts showing the high efficacy of the Bendiocarb and also the high quality of spraying. It was also found that KT50 (Time taken for 50% knockdown of the exposed mosquitoes) was between 10-20 minutes. In addition to the above tests, monthly wall bioassays will be carried out in three selected districts (Pader, Oyam and Gulu) to track the residual efficacy of Bendiocarb over time. This was initiated in Pader district and the following chart shows the progress to date. The same houses were used in the study, and these houses were sprayed in June, 2010.



GIS

GIS maps were developed for the six districts showing the insecticide usage rate and the spray coverage. Other maps showing the health centers and IRS stores in the six districts were also developed. Below are the spray coverage maps for the six districts in the last spray cycle.





Maps showing the location of health centers and Uganda IRS parish level stores and soak pits were developed for the six districts. These maps are useful in identifying the location of parish stores during logistics distribution and data collection.

DDT Re-export

All DDT product and waste materials retained from the previous IRS project were collected and exported to Pretoria during the quarter. We are awaiting confirmation from AVIMA that thermal destruction has been completed.

Monitoring and Evaluation

Every district identified three data entry clerks that were engaged during the spray round to enter spray operations data on a daily basis into the Uganda IRS database for analysis of spray performance. The data clerks are based at a central data entry location made available by the districts. Data collectors using motorbikes pick up data sheets from the parish stores and bring them to the central data entry point on a daily basis. The data collection system (motor-bike use) was impacted by the shortage of fuel that resulted in the increase of fuel prices, causing a slight backlog of data sheets at the parish stores. However, the system was streamlined and data resumed flowing to the central data entry point on a daily basis. The Project’s M&E team hired a data analyst, which has improved the compilation and analysis of all program operational data.

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 15: Result 3 Indicators

Indicator	Quarter 1 Actual	Quarter 2 Actual	Quarter 3 Actual	Quarter 4 Actual	FY 10 Target	FY 10 Actual
IRS training module developed	0	0	0	0	0	0
Number of IRS and entomological monitoring plans developed and implemented	1	0	0	0	2	1
Number of national and district staff conducting the in-service training	0	0	0	0	0	0
Number of students trained in IRS	0	0	0	0	0	0

Accomplishments this Quarter

Most of the activities under Result 3 are scheduled for the second year of the project cycle. However, some progress has been made on establishment of the insectary as detailed below.

Establishment of Insectary

After the discussion with MOH and USAID, it was decided that a MOU should be signed between MOH and Gulu University allowing MOH to have access to the insectary during and after the project. After receiving the Bill of Quantities (BOQ), it was decided to give the task of construction of the insectary to Gulu university engineers, through an agreement laid out in a MOU between Gulu University and Abt Associates, Inc.

Project Management and Administration

Accomplishments this quarter:

Human resources

Three new staff joined the Uganda IRS team; a Data Analyst and Logistics manager based in Gulu and an Accountant based in Kampala. Job descriptions of the Project Assistant, Administrative Assistant Kampala, Field Coordinators, and National IRS Field Coordinator were revised.

The plan to subcontract a logistics firm to replace Coopers was cancelled following detailed review of potential subcontract partner capacity, and it was agreed upon to handle the logistics in-house. The project's organisational structure has since been reviewed to include new logistics positions that include four district store keepers, two dispatch agents and one central store manager.

Short Term Technical Assistance (STTA)

As part of the orientation for the accountant, Sita Magua, the Accounting Manager at the Home Office, visited the project to provide training. Simon Smith from the HO came in to provide technical assistance with finalization of the Year Two work plan and budget.

Disciplinary Measures

- The sub-county supervisor of Bobi was arrested on September 22, 2010 for charges of soliciting bribes during the recruitment of the spray operators.
- Supervisors who performed poorly in the previous spray rounds were discontinued from any involvement in current and future IRS activities.

Reporting Requirements

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

1. Monthly Reports-July and August
2. End of Spraying Report-Kitgum/Pader
3. Project Quarter 3 Report (April-June, 2010)

Successful interventions/ Innovative Approaches

1. A performance tracking sheet was designed and placed at each store to track daily performance. This sheet is now the cornerstone of the supervision activities.
2. Experienced Vector Control Officers (VCOs) from other districts across the country and from the MOH were engaged to support the project with training of spray operators at sub-county level in order to improve the quality and efficiency of spray application.
3. In Amuru district, VCOs were brought on board as a pilot to boost supervision of the spray round.
4. Hard to reach population centers in Purongo sub-county of Amuru district were reached with IRS using boats as a means of transportation of the spray team.
5. Unique identities were issued to the spray operators enabling the project to track individual performance and quality of spraying.
6. The logistics department has implemented a data base, which is used to determine numbers of spray personnel by Parish, as well as quantify supplies and equipment needed based on the number of houses served from each store. This improvement allowed for advance planning and pre-positioning of supplies, making it possible to distribute logistics

consistently and on time to all sub-counties in Amuru and Gulu districts resulting in all the sub-counties in the two districts starting spraying on the same day.

7. The project has continued to innovatively devise ways of efficient and effective operation while minimizing program costs. The insecticide usage rate has greatly improved overtime, currently standing at 2.7 houses per sachet. The houses sprayed per spray operator per day have also improved standing at an average of 11 houses sprayed per day. The number of spray days per spray cycle have also reduced with the last spray cycle in Amuru taking only 16 days to complete (albeit this was done with an increase to the number of spray operators).
8. IRS has been well received by many community members who have opened their houses without hesitation and have reported satisfaction with the current insecticide and spray rounds.

Challenges/Constraints

1. Hard to reach villages in some districts pose a challenge. In Amuru district, Purongo sub-county, the communities in Aringo and Latoro parishes, are surrounded by a national game park. The only access route to these communities is by passing through another district and crossing River Nile using canoes. River Nile is the longest river in the world.
2. Some pockets of resistance to the spray exercise were observed in some sub-counties in Gulu district, notably sub-counties of Paicho, Lakwana, Bungatira and Lalogi. The IEC/BCC sub-contractor intervened with dissemination of electronic media messages on radio and mobilization of district leadership to address the communities. The communities responded positively thereafter.
3. In Apac there was uncertainty in gaining local political support to conduct IRS activities following a council resolution to suspend spraying. However project management promptly convened a meeting of the district leadership and resolved the problem, though there was a two weeks delay in implementation of the spray round.
4. The spray region experienced heavy rains that interrupted the day-to-day spray activities.
5. The high incidence of faulty pumps slowed down the implementation of the spray activities. The project worked closely with the supplier of the newly purchased pumps to catalogue the issues, and has agreed upon full replacement with new, functioning pumps.
6. Incidences of indiscipline are still reported among spray personnel. Some sub-county supervisors (Health Assistants) still need close follow-up to do their supervisory duties. They are chronically absent from duty.
7. Involvement of health assistants and spray operators in other health activities of other development partners sometimes interrupts/delays spray activities.
8. Lack of coordination among implementing partners affects the progress of activities.
9. Inadequate mobilization by some LC1 chairmen leading to slowing down of the spray process.
10. A few suspected cases of indiscipline among the spray personnel resulted in the alleged insecticide poisoning of livestock reported in Kitgum district and suicide death in Pader district. A total of 6 cattle were reported dead from two incidents that occurred within the outskirts of Kitgum Township. In both incidents it was suspected as insecticide theft by the project spray operators. A suspected case of suicide using insecticide illegally acquired (stolen) from the project by a female spray operator was reported in Pader. The deceased was a spouse to the spray operator. The incident, which is suspected to have resulted from a



COP morale-boosting spray team crossing the river Nile to access hard to reach villages in Amuru district.

domestic misunderstanding, took place after spray activities had been wound up in the district. All these incidents are still under investigation by the police.

Lessons Learned and Recommendations

1. Trickle-down to the Parish level, and the use of bicycles has given spray operators better access to houses which were previously difficult to reach, given the poor road network. This has helped in achieving high coverage rates.
2. Empowering the district leaders' ownership of the program resulted in the provision of free storage space, with only minimal repairs required.
3. Involvement of DHT members and Abt staff in recruitment of the spray personnel enabled more VHT members to be brought on board, thus ensuring transparency and community participation

Planned Activities for the Next Quarter

1. Spraying of Kitgum, Pader, Apac and Oyam districts which includes:
 - Micro-planning with the district health office
 - Procurement of required supplies
 - Training of health officers in handling of insecticides
 - Training of Trainers (TOT)
 - Entomological studies
 - Environmental compliance inspection
 - Logistical supplies to the sub-counties/parishes
 - Orientation of spray operators
 - Actual spraying