



PRESIDENT'S MALARIA INITIATIVE

INDOOR RESIDUAL SPRAYING FOR MALARIA CONTROL



Mozambique FY08 Work Plan

Indoor Residual Spraying (IRS) Indefinite Quantity Contract (IQC)
Task Order 1

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Prepared for:
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I. Introduction, Background and Summary of Country MOP

The U.S. Agency for International Development (USAID) has identified Mozambique as one of the countries to receive funding under the President's Malaria Initiative (PMI). The Mozambique Ministry of Health (MISAU) through the National Malaria Control Program (NMCP) would like to make greater use of a number of effective malaria interventions, including Indoor Residual Spraying (IRS) as the means through which to achieve a significant reduction in the impact of the malaria burden on the Mozambican population. In recent discussions, USAID and MISAU have identified six malaria endemic districts in the Zambezia province (Mocuba, Milange, Morrumbala, Nicoadala, Namacurra and Quelimane) for IRS activities. The Mozambican government would like to consolidate these six districts before expanding to include others. In 2007, PMI began supporting operations in all six of these districts.

The Mozambique IRS program under PMI is expected to run from 2007 to 2010. The aim of the PMI IRS intervention will be to lower the malaria incidence to a point that can be sustained through other interventions.

RTI International, Inc. (RTI) is the prime contractor for USAID's Indoor Residual Spraying Indefinite Quantity Contract (IQC). Under the Indoor Residual Spraying IQC Task Order, USAID has requested that RTI provide technical support to the anticipated IRS program in Mozambique.

This work plan covers the period from March 2008 to February 2009.

General Goal

To provide technical, strategic, managerial and operational support to implement IRS, in realization of PMI's goal of reducing malaria-associated mortality within the six targeted districts of the Zambezia Province (Namacurra, Nicoadala, Quelimane, Mocuba, Milange and Morrumbala).

Specific Goal

In 6 districts of the Zambezia province, achieve 50% malaria related mortality reduction through greater than 85% target population coverage with IRS, over 4 years.

Objectives

Under the supervision of the PMI country team, and in collaboration with the MoH/NMCP and other Roll Back Malaria (RBM) partners in health and other related sectors, RTI will carry out IRS and other activities aimed at significant morbidity and mortality reductions in accordance with PMI targets by 2010. As indicated in the Malaria Operational Plan (MOP) for Mozambique, during FY 2008, with direction from USAID/PMI/Mozambique and in collaboration with the

NMCP, Zambezia Provincial Health Office (DPS), and Roll Back Malaria (RBM) partners in health and other related sectors RTI will:

- Support training, operations and supervision of IRS activities in 6 districts of Zambézia province. This support will include hiring and training nearly 1100 spray personnel who will spray approximately 502,000 houses over a three-month period.
- Purchase equipment and supplies for the IRS operations in these 6 districts. Enough DDT and pyrethroids are currently available in Mozambique to cover IRS needs through 2008. However, there is still a need to purchase pumps, spare parts, and some personal protective equipment (PPE) for the spray operators in the six targeted districts.
- Strengthen entomological capacity. In FY08, PMI will strengthen entomological capacity at the NMCP and provincial levels, with further support for training and vector control operations throughout Mozambique.

Expected Results

In six districts of Zambezia province, more than 1.88 million people will have been protected through judicious application of IRS to approximately 502,000 dwellings, during the life of the IRS project (2006-2010).

II. Overview of Strategy for IRS Country Support

RTI is the prime contractor for USAID's IRS IQC. Under the IRS IQC Task Order, USAID has requested that RTI provide technical support to the IRS program in Mozambique. While RTI is the prime contractor, there are various IQC, and national partners with whom RTI will be working.

- Liverpool Associates for Tropical Health (LATH), an IRS IQC partner with RTI, will work alongside RTI to perform resistance monitoring and vector susceptibility studies to aid in appropriate selection of insecticides.
- Crown Agents Mozambique, an IRS IQC partner with RTI, will assist RTI with procurement of IRS materials and equipment, and provide logistics support as needed.
- DPS Zambezia, RTI's main counterpart in the Province, will work with RTI to organize and participate in IRS preparation, implementation and evaluation activities; provide supervision for district health personnel working on IRS; employ seasonal spray and mobilization personnel; and document IRS activities and findings after spray operations are completed.
- RTI will support Mozambique's MoH and other stakeholder institutions in the maintenance of a national malaria technical coordinating committee. This is an umbrella committee that oversees and monitors all malaria related program interventions. RTI is a technical coordinating member of the IRS intervention area.

- RTI will work with the MoH and the INS (Mozambique National Institute of Health) to build entomological capacity (*RTI and WHO jointly supported training courses for newly and previously recruited biologists in June and August, 2008*).
- RTI will also work in collaboration with the MoH/NMCP, USAID, CDC, Ministry of Agriculture (MINAG), Ministry of Environmental Affairs (MICOA), WHO and other implementing partners as directed by USAID.
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III. Project Activities

Planning and Assessment

- Logistics Planning: Through a collaborative process with the Ministry of Health and Zambezia DPS officials, RTI will determine the material, logistical, and financial support required for the IRS program and associated environmental compliance activities. RTI will engage district officials in the planning process to establish their capabilities to plan future IRS operations. These actions will comply with USAID requirements and WHO guidelines and specifications.
- Environmental Assessment and Compliance: RTI will conduct an environmental review that satisfies the regulatory requirements of 22 CFR 216 and prepare an Environmental Assessment (EA). The EA will document the results of the review and will detail procedures that must be followed to minimize potential risks to human health and the environment from the use of pesticides in IRS. The EA will be prepared in close collaboration with designated staff and officials of cognizant Mozambican ministries, e.g. Health, Agriculture, and Environment. The review will also identify any specific legal requirements that must be met under Mozambican law before the IRS program can proceed. Following the successful public hearing for the use of IRS in the Zambezia province, RTI will aid MISAU to fulfill the requirements of MICOA by providing the technical assistance to perform the necessary assessments to achieve compliance. (*The SEA was approved by the Zambezia MICOA in September, 2007 and approved by USAID on February 12, 2008*).
- Environmental Monitoring and Compliance: The purpose of an environmental monitoring and compliance plan is to assist IRS operations in the safe use of insecticides, specifically DDT, to minimize potential risks to human health and the environment. The intent of the environmental monitoring program is to establish best practices for sampling and analyzing exposure concentrations from insecticides used for IRS. As agreed to with USAID/Washington environmental officers, RTI's environmental monitoring and compliance plan will focus on baseline monitoring and sample collection. The monitoring program will focus on agricultural products for export and environmental exposure pathways and will include a sampling plan and a quality assurance plan. RTI's environmental monitoring team will develop a baseline monitoring and sample collection plan, provide sample collection training to environmental samplers identified in the field,

and ensure appropriate sample analysis and review. Results will be shared with USAID/PMI Mozambique and with MICOA counterparts.

- **Pesticide Selection:** The government of Mozambique has already formulated an IRS strategic framework covering three classes of insecticides: carbamates, organochlorides and pyrethroids. For the 2008 IRS campaign, the Mozambican government has proposed the use of di-chloro di-phenyl tri-methyl chloride (DDT) 75% WP for 90% of the structures (rural and traditional houses) in the six districts and the remaining 10% (urban areas) to be covered by deltamethrin 10% WP, both of which have already been procured by the government in sufficient quantities to meet the necessary insecticide demands for all the six districts for the 2008 malaria transmission season.

Procurement and Logistics

- **Procurement:** In light of sufficient quantities of DDT being available, RTI will not make any significant insecticide purchases for the 2007/2008 malaria season, but will facilitate the in-country transportation and safety of the products. Once insecticides have been transported to Quelimane by the MoH/Zambezia DPS, RTI will coordinate and manage the distribution of necessary insecticides to other district operational facilities within Zambezia for spray operations. The GoM procured 900 tons of DDT for IRS across the country and a sufficient proportion of this will be sent to the Zambezia Province. RTI will, however, in coordination with its partner Crown Agents, arrange all procurement, shipping, delivery, and storage of other essential materials and equipment, personal protective equipment and supplies for entomological surveillance. These actions will comply with USAID requirements and WHO guidelines and specifications.
- **Pesticide management:** In accordance with the SEA, RTI will implement a strict chain-of-custody system of pesticide management to ensure that all insecticide is accounted for at every step of the program implementation process. Storekeepers and district supervisors will receive sufficient training on insecticide tracking and record keeping. A DDT control officer will be identified in the district to monitor insecticide movement and distribution throughout the district. In addition, each sachet of insecticide will be given a unique number and logged according to the spray operator to whom it is distributed. All empty sachets will be collected at the end of each day and double checked against earlier distribution records.
- **Storage:** The citing of storage facilities poses a challenge in Zambezia Province due the nature of the terrain, which is prone to flooding. Most districts are situated below the mean sea level and as such could potentially be flooded. During the 2007 campaign, RTI identified warehouse facilities in Quelimane to be shared with the DPS and MISAU. The previous central warehouse used by MISAU was situated in wet environs and did not meet proper storage space standards as set by the Food and Agriculture Organization (FAO). RTI is also working with its partner Crown Agents to set up storage containers in each of the 6 districts, as such space is currently limited or completely unavailable. Other than providing storage facilities at the central level in Quelimane for insecticide, RTI is currently working with its partner Crown Agents on obtaining a successful tender to put

up base storage facilities in each district in the form of 40 foot containers. Until such a time as all storage containers have been set up in each of the districts, RTI will assist the district administration in the rental of additional storage facilities for the duration of the spray operations.

IEC Development and Implementation

- Information Education Communication (IEC) development: RTI plans to build on experiences from the 2007 IRS campaign where a mobilization program was put in place to provide communities with information on IRS, proper preparation and safety precautions and post-spray cleaning regimens. RTI will work with the DPS to recruit and train community mobilizers for each of the target districts. In consultation with the DPS, RTI will develop an IEC plan to be implemented during IRS and will include:
 - Radio spot messages
 - Community sensitization and mobilization
 - Informational pamphlets.

All materials developed for print and radio will be in Portuguese and local languages.

The specific objectives of the IRS IEC campaign are:

- Create long term sustainability of the program by involving and engaging key stakeholders
 - Inform the beneficiaries about the positive benefits of IRS in controlling and preventing malaria and malaria related deaths
 - Inform the beneficiaries about their role before, during and after the spray operations
 - Inform the key stakeholders and beneficiaries about the environmental safety issues and allay fears related to environmental and health effects of using insecticides.
- IEC Campaign: RTI will support the Zambezia DPS in IEC/behavior change communication (BCC)/community mobilization by carrying out effective community mobilization campaigns to increase the promotion of IEC for spraying activities.

These activities will be aimed at educating communities on what IRS is, its benefits and risks, and proper procedures for safety and community participation. During the 2007 campaign, it was noted that some households believed spray operators were not using a complete sachet to mix up insecticide in the spray cans. Households will be encouraged to watch spray operators as they prepare the spray can mixes to ensure the full quantity of DDT is used. Communities will also be encouraged to alert monitoring teams during their visits to any perceived misconduct of the spray personnel. Sensitization messages will be disseminated throughout the target communities beginning two weeks prior to spray activities in the target district, and will continue throughout spray operations. The IEC campaign will include pre and post-spray surveys to ascertain how IRS is perceived and

how to better target communication and outreach prior to and during the spraying exercises.

Recruitment - Mobilizers and mobilization supervisors will be recruited and trained. During the 2007 campaign, a mobilization team comprising the following was recruited:
Number of community Mobilizers = 414
Number of team leaders = 66
Number of supervisors = 13
Number of IEC leaders (district level) = 2

During the 2008 campaign, dependent on the final operational plan drafted in collaboration with the Zambezia DPS, RTI expects that a similar number of personnel will be recruited for mobilization activities in Zambezia.

Indoor Residual Spraying Operations

- Implementation of IRS Programs: RTI and its partners will provide operational support for IRS implementation including all aspects of training, logistics, supervision, monitoring, and quality assurance. RTI will assist the DPS in implementing an efficient IRS program with quality control measures in conformity with WHO and other international guidelines. RTI will engage Mozambican staff as necessary to collaborate with DPS staff to oversee the work of the IRS teams on the ground. The program will also receive technical, logistical and administrative back up from our Nairobi and Washington project offices. The following activities will be conducted in support of day-to-day operational management.
- District planning: RTI will assist in the organization of a yearly district planning meeting where RTI, the DPS and other key stakeholders shall review IRS operations of the previous year and begin detailed planning for the upcoming spray campaign. A detailed plan of action will be prepared to include the setup and organization of spray teams, supplies, insecticide requirements, transport, dates and an itinerary for each district, number of houses to be sprayed and estimated time period needed to complete the spraying for each district.
- Organization of Spray Teams: In collaboration with the DPS, RTI shall organize the spray teams to ensure effective implementation of the IRS activities and adequate safeguards to prevent pilferage of insecticides for non-vector control uses. RTI intends to work with the DPS to develop a staffing structure where district supervisors, and preferably team leaders, are permanent DPS employees (e.g. malaria control and environmental health officers at district level) who would be accountable for IRS implementation and any misconduct that may happen during field operations.
- Mapping: In collaboration with other partners, RTI will develop a strategy to allow the targeting and mapping of houses for IRS, which will promote improved planning, monitoring and evaluation of implemented IRS activities.

- Training: RTI and its partners will work with the DPS to identify stakeholders at national, provincial and district levels and create awareness about IRS at these levels for policy and administrative authorities. RTI will determine the number of required personnel for IRS, from spray operators to team leaders to supervisors and logisticians. RTI will conduct and/or assist in comprehensive (and refresher) training for all health professionals and spray personnel involved in IRS activities. RTI will outline the cascade training schedule from health workers to operators. From the operators' course, RTI will identify outstanding trainees and designate them as team leaders to supervise a number of operators. Training modules for trainees will be adapted to include sections on malaria prevention and control, IRS environmental compliance, monitoring and evaluation. RTI will work with the DPS to run awareness workshops for health workers in health facilities to support IRS in management of insecticide poisoning and ensuring pharmaco-vigilance. RTI will work with MINAG in training of store keepers to enable them to manage stock effectively. Other support cadres such as drivers will also be trained to enable them work in the same environment to improve their own safety and those of fellow workers.

- Adaptive Management: Following successful operations on the ground, each district will carry out an in-depth assessment of "their" IRS activities, involving all stakeholders, to look at lessons learned, challenges and key outcomes in terms of coverage and impact of the last cycle. The key outcomes will then be shared at the provincial and national levels. These results will be presented by district health malaria teams, supported by the provincial team, at a relevant forum such as the national IRS stakeholder meeting held in Maputo involving MISAU, NMCP, MRC, WHO, RTI, LSDI, LATH, MICOA, MINIAG, and others. Recommendations will then be made to improve the following IRS round in terms of planning and logistics.

- Implementation and Supervision: RTI will intensively collaborate with the DPS to successfully implement IRS activities according to the plan of action developed in the district planning meeting, which will include continuous supervision of spray teams, liaison with the population and local leadership, and on-the-job training, as well as ensuring that the operational support to successfully complete IRS activities is made available. During spray operations, RTI and its partner Crown Agents will provide financial support to the district health teams for the payment of daily rates of spray men, guards and other seasonal hires, as well as per diem for government employees tasked with IRS roles.

Following on last year's campaign, a district IRS service area will be maintained in each district. This service area will contain adequate storage space for IRS equipment, insecticide and supplies for the district, but will also serve as a gathering point for IRS teams and will house a wash station for equipment and PPE cleaning after a day of spray operations.

Transportation from the service area to the target households will be arranged in collaboration with RTI's partner Crown Agents, and will be available to transport

spray teams and spray equipment at the beginning and end of each day of spray operations.

Through discussions during the district planning meeting, RTI will work with districts to determine start dates and length of IRS operations for this year's campaign. *(The district planning meeting was held on 10th through the 15th of March and an IRS start date of August 11th for Quelimane, Nicoadala and Namacurra, and 1st of September for Mocuba, Milange and Morumballa, was agreed upon for the spray campaign in each district, with a time period of 90 days using a 6 day work week. Recently, while the Minister of Health ordered that spray operations begin on July 15 nationwide, subsequent declarations have put the start date closer to the original agreement of August 11th).*

Other Activities

- Entomological Surveillance: RTI, in collaboration with its partner LATH, will establish entomological surveillance sentinel sites in selected districts of the Zambezia Province; provide technical assistance and/or training for health professionals who will be involved in the entomological work; supply all the necessary entomological equipment for the sentinel sites; and co-coordinate and lead the entomological surveillance. In partnership with CDC and LATH, RTI will develop an entomological monitoring plan to include baseline and post-IRS data collection, susceptibility testing of the insecticide, and resistance monitoring. In general, RTI and its partners will work to provide sufficient entomological information to guide in-country vector control measures.
In addition, RTI will work with the NMCP to refurbish the central level insectary, and with the Zambezia DPS and NMCP to identify and rehabilitate a suitable venue for a provincial insectary, in collaboration with its partner LATH. RTI has already procured entomological equipment for the central entomology lab in Maputo and has made initial assessments of the costs associated with refurbishment.
- Capacity Building: RTI and its partners will develop increased operational capacity of the Mozambique NMCP at the central, provincial and district levels to conduct safe and well-managed IRS programs in future. The RTI COP will be based in RTI's Maputo office to maintain close communication and collaboration with the NMCP. He will serve as a technical resource for the NMCP and will assist in planning and policy development at the central level. The RTI Provincial Coordinator will be based out of the Quelimane field office and maintain close communication and collaboration with the Zambezia DPS. RTI will utilize a mentoring and "training of trainers" approach to develop increased operational capacity of the program and increase technical skills of provincial and district level staff. Additionally, RTI will provide field training opportunities in the form of "learning by doing" to district officials such as district environmental managers and district malaria control workers on environmental monitoring and entomological surveillance.
- Post spray season review meetings

RTI, in each year of its operation in Mozambique, will support annual post-spray season review meetings at the district levels in Quelimane. These meetings will ensure the review of the spray season data and costing and the evaluation the performance of the operations at district levels. They will also inform the final compilations and certification of data related to the IRS operations, as well as analysis of results for the next year's planning activities. Similarly, RTI will support the conduct of a national post-spray season review meeting involving all the IRS provinces of Mozambique. This meeting will similarly assist the NMCP with the review of data, costing and performance as well as analysis of results and a review of IRS procedures for the next rounds of IRS operations.

IV. Management Plan

RTI will establish an effective and efficient management structure in Mozambique to implement the IRS program with quality control measures, in conformity with international standards as described in WHO guidelines on IRS. RTI's Chief of Party (COP) will be based in Maputo, and will ensure that all of RTI's corporate systems and procedures are mobilized appropriately to support management of this project. He will be the principal point of contact with PMI, the NMCP and other national partners, and will bear ultimate responsibility for all project management tasks, including quality and cost control, performance monitoring, reporting, and client relations. The COP will retain overall responsibility for managing RTI and partner activities in Mozambique. He will coordinate with PMI, the MOH and NMCP on project performance and implementation issues. The Maputo office will also house a Finance Officer and Office Manager, as well as other administrative staff to assist with the day to day running of the project as necessary.

RTI's Provincial Coordinator will be based in the Quelimane office and will work closely with the DPS and district health teams. The Provincial Coordinator will be joined by a Logistics Officer, a Training Coordinator, six District Coordinators and six Logistics Assistants as key staff responsible for each operational location. The Provincial Coordinator will oversee and coordinate all activities in the province. The Training Coordinator will be responsible for IRS and IEC operations and training for the province. District Coordinators will work with Site Managers, Logisticians and other field operations staff within each district. District Coordinators will be hired for the duration of each IRS round, unless other on-going provincial activities require their full time presence. Depending on project requirements, other technical or administrative staff may need to be hired. The recruitment priority will be hiring a Provincial Coordinator to manage activities in Zambezia, and logistics and finance assistants to assist with administration of the project.

RTI intends to recruit Mozambican citizens for all in-country positions. RTI will work to ensure that each level within the IRS structure is connected with counter-parts within the Government of Mozambique. The Chief of Party will interface with top level staff at NMCP and other government agencies, while the Provincial Coordinator, Training Coordinator and District Coordinators will work directly with provincial and district health offices, Environmental Coordinators, local government leadership, and other sector level site managers. The in-country

team will also receive technical and administrative support from RTI staff in Nairobi and Washington.

The following table represents RTI’s plan for providing technical assistance:

Table 1: Strategic Technical Assistance and TDY Plan

Name	Type of TA (consultant, RTI employee, local, international)	Coming from (USA or Nairobi)	Tasks to be undertaken or activities to be supported	Number of visits
Patricia Preware	RTI employee	USA	Technical and administrative support under the role of country task manager to include work plan and budget development, overall project management and operations assistance	1
Abrar Sattar	RTI employee	USA	Administrative support under the role of project administrative specialist for the country project to include orientation to RTI and USAID administrative procedures and management	1
John Chimumbwa	RTI employee	Nairobi	Technical support under the role of technical director for the IRS program to include training of trainers and key national technical meeting attendance	1
Joaquim Canelas	RTI employee	Nairobi	Operational and logistics support under the role of operations and logistics director for the IRS program to include logistical assessments and needs planning	1
Tito Kodiaga	RTI employee	USA	Environmental monitoring and compliance support under the role of environmental scientist for the IRS program to include environmental monitoring plan development, trainings and assessments	1
Francis Kithuku	RTI employee	Nairobi	Financial management support under the role of finance manager for the IRS program	1
Catherine Ngugi	RTI employee		Operational support under the role of operations manager for the IRS program	1
Autman Tembo			Undertake environmental compliance inspections and reporting under the role of environmental compliance inspector for the IRS program	2

V. Monitoring and Evaluation

RTI and its partners will plan, implement and document a monitoring and evaluation component for IRS operations. RTI will collect baseline data to verify estimates for logistics on the ground, including vector bionomics. RTI will review indicators, methods, and data sources for monitoring and evaluation of IRS operations with CDC, USAID and MISAU/NMCP, and will develop a Performance Monitoring Plan.

Operational Indicators

With regard to operational achievements, RTI will ensure that the recommended dosages of insecticides are being used, that the quality of the insecticides are the required standard, that the percentage of houses and rooms sprayed in relation to the targeted number of houses or rooms

are adequate and that the insecticide is applied at the appropriate time in relation to the onset of transmission.

Process and output indicators will include:

- Number of people who have been trained with U.S. government (USG) funds to deliver IRS according to protocol.
- Number of occupied houses in the IRS program target area sprayed with a residual insecticide in the most recent round with USG funds.
- Number of occupied houses in the IRS program target area sprayed with a residual insecticide / total number of occupied houses.
- Number of children under 5 residing in houses sprayed with a residual insecticide.
- Number of pregnant women residing in houses sprayed with a residual insecticide.

Entomological Indicators

Entomological surveillance will be carried out to ensure the entomological impact of IRS activities as well as to assess insecticide susceptibility over time. RTI shall collaborate with the Centers for Disease Control and appropriate in-country entities, organizations and academic institutions to deliver these services.

RTI shall maintain records of program performance which will demonstrate adherence to WHO technical standards quality of training and supervision, procurement activities and environmental compliance, including environmental monitoring.

The objectives of the entomological monitoring activities will be as follows:

- To identify the local malaria vectors
- To monitor species densities and to monitor changes in species composition as a result of the IRS intervention
- To assess changes in behavioural patterns of the malaria vectors in relation to disease transmission in sprayed areas in order to evaluate changes in human-biting
- To conduct bioassays and monitor susceptibility status of malaria vectors to common insecticides used for malaria control activities
- Conduct bioassays on the quality of insecticides on sprayed surfaces
- To strengthen the capacity of the malaria vector control department at the Ministry of Health.

Deliverables

RTI anticipates preparing the following deliverables and will consult with USAID/Mozambique, the MOH/NMCP, and the USAID CTO for the IRS IQC to confirm the format of and schedule for the following reports:

- Pre-Operational Period
 - Supplemental Environmental Assessment (SEA)

- Memorandum of Understanding (documenting environmental compliance requirements; to be agreed among USAID, RTI and cognizant Mozambican ministries (e.g., Health and Environment)
- Logistics Assessment
- IRS Work Plan
- Operational Period
 - Weekly progress reports
- Post-operational Period
 - End of Round Spraying Performance Report
 - Annual Report
- Quarterly Financial Report (including 1-2 page narrative on progress)
- Reporting inputs to USAID reporting systems (e.g., MORA, PMI, and FY OPs)

Attachment % Mozambique Implementation Plan and Timeline

For period from March 2008 to February 2009

Component	Activity	Person/ partner Responsible	Project Month												Key Milestones
			M	A	M	J	J	A	S	O	N	D	J	F	
Project Start-up/ Mobilization	Planning meetings organized with USAID, NMCP and District Health Offices	RTI			X										Country work plan approved by USAID. MOU/aide memoire signed.
	Hire additional staff required for IRS operations	RTI	X	X	X										
	Establish satellite offices.	RTI	**												
	Sign MOU/aide memoire with NMCP, DPS	RTI, NMCP			X										
	Work plan submitted	RTI			X										
Planning and Assessment	Conduct logistics planning meetings with district officers.	RTI	X	X											Logistics & baseline entomology assessments completed. SEA approved. Pesticide selected.
	Conduct environmental review.	RTI	**												
	Prepare and submit Supplemental Environmental Assessment.	RTI	**												
	Prepare and submit environmental monitoring and compliance plan.	RTI				X									
Procurement and Logistics	Select pesticide.	USAID, NMCP	**												Technical specifications released. Vendors selected. Insecticide, PPE and equipment delivered
	Develop technical specifications.	RTI		X											
	Release tender notice for procurements.	RTI, Crown Agents			X										
	Review and select vendors.	Crown Agents				X									
	Receive PPE, and equipment.	Crown Agents, RTI					X								
	Identify district storage and warehouses	RTI, DPS				X									
	Transport equipment and materials to storage facilities.	RTI, Crown Agents					X								
	Transport insecticide from central warehouse to district storage areas	RTI					X								
	Train storekeepers and district supervisors on insecticide tracking and record keeping.	RTI					X								
	Identify and train a DDT control officer in districts.	RTI					X								
	Arrange and oversee transportation of IRS personnel, equipment and insecticide						X	X	X	X	X				
	Collect empty insecticide sachets and check against distribution records.	RTI									X	X			
IEC Development & Implementation	Tailor IEC materials for local use.	RTI	**												Needs assessment completed. IEC materials produced.
	Train staff and district personnel in IEC.	RTI IEC Coordinator					X								
	Disseminate IEC messages via radio,	RTI					X	X	X	X					

Component	Activity	Person/ partner Responsible	Project Month												Key Milestones
			M	A	M	J	J	A	S	O	N	D	J	F	
	workshops, pamphlets														Training completed. Campaign launched.
	Conduct IEC mobilization	RTI					X	X	X	X					
	Conduct pre- and post-spray surveys on IEC effectiveness.	RTI					X				X				
Spraying Operations	Perform logistics assessment and geographical reconnaissance at district level.	RTI	X	X											District staff recruited and trained. Medical check-ups completed. Training completed. Spraying launched. Spraying completed. Equipment and supplies recaptured.
	Recruit and hire spray personnel.	Ministry of Health				X	X								
	Conduct training of trainers (TOT) and spray operator training.	RTI, DPS				X	X								
	Perform pre-, during, and post-operational inspection of environmental safety measures.	RTI						X			X				
Spraying Operations	Hire vehicles for logistics support.	RTI					X	X							
	Conduct spraying.	RTI, DPS, DHOs						X	X	X					
	Conduct mop-up visits.	RTI, DPS, DHOs								X	X				
	Conduct monitoring visits	RTI, Multi-sectoral monitoring committee						X	X	X	X				
	Collect, clean, enumerate, and store materials and equipment.	RTI									X	X			
Monitoring & Evaluation	Meet with NMCP, CDC, and USAID to discuss monitoring and evaluation plan.	RTI			X	X									M&E reports submitted to USAID. Post-round evaluation completed.
	Review indicators and develop a Performance Monitoring Plan.	RTI			X	X									
Other Activities: Reporting	Submit quarterly financial report	RTI				X			X			X			Quarterly financial reports and end-of-round reports submitted.
	Submit end of spray round report	RTI										X			
Other Activities: Entomological Monitoring	Develop baseline and post-IRS vector collection and data analysis plan.	RTI, LATH, CDC			X	X									
	Perform baseline and post-spray entomological assessments	RTI, LATH					X					X			
Other Activities: Capacity Building	Conduct refresher training for spray operators and supervisors.	RTI				X	X								
	Assist NMCP,DPS, DHOs in development of planning/reporting tools	RTI	X	X				X	X					X	
	Develop sustainability plan with NMCP, DHOs	RTI				X						X	X		

** Activity completed prior to work plan period.

Attachment 2: Mozambique Countdown Calendar

For period from March 2008 to February 2009

Component	Key Milestone	Date to be Completed	Status (e.g., date achieved)	Antecedent to:
Project Start-up/ Mobilization	Country work plan approved by USAID.	May, 2008		Producing MOU and/or aid memoires
	MOU/aide memoire signed with government and/or key partner.	May/Early June, 2008		Initiating planning activities with government and/or key partners
Planning and Assessment	Logistics assessment completed.	April, 2008		Planning scope and scale of operations and procurement to be required
	Baseline entomology assessment completed.	Beginning in June, 2008	P	esticide selection
	Agreement reached with USAID and government on pesticide selection.	**	Achieved (2006)	Permission for spray operations
	Supplemental Environmental Assessment completed.	**	Achieved (August, 2007)	Finalization of EA and approval
	SEA approved by USAID	**	Achieved (Jan. 2008)	Permission for spray operations
	EIA approved by national environmental agency, if required	**	Achieved (August, 2007)	Procurement
Procurement & Logistics	Technical specifications for tenders approved and released.	May, 2008		Ordering supplies for spraying
	Vendor selection and procurement process completed.	June, 2008		Delivery of supplies for spraying
	Compression sprayers delivered	July, 2008		Spray operator training
	Insecticide and PPE delivered	July, 2008		Initiation of spray operations
IEC Development & Implementation	IEC needs assessment completed.	Early May, 2008	IEC	material design
	IEC material designs and implementation plan approved.	June, 2008		Production of materials
	IEC materials produced and delivered to project.	June, 2008		Training of IEC implementers
	Training of IEC implementers completed.	June, 2008		Implementation of IEC campaign
	IEC campaign launched.	July, 2008		Spraying operations
Spraying Operations	Geographic reconnaissance completed	April, 2008	Achieved April, 2008	Team assignments and logistics arrangements
	District staff recruited, oriented and trained.	July, 2008		Completion of operational logistics

				and EM set up
	Operational logistics and environmental mitigation set up at operational sites.	July, 2008		Spraying operations
	Medical check-ups (including pregnancy tests) for sprayers, supervisors, warehouse staff, cleaners, etc. completed.	Mid July, 2008		Permission to spray
	Training of spray operators completed.	July, 2008		Spraying operations
	Spray operations launched.	July 15 (as per order from Minister of Health)		
	Spraying operations completed.	October, 2008		Recapture and proper management of equipment and supplies
	Equipment and supplies recaptured and securely disposed or stored.	November, 2008	Environme	ntal compliance
	Post-spraying evaluation conducted.	December, 2008		Final report production
	Final report produced and submitted to USAID.	January, 2009		

** Activity occurred prior to current work plan period