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Technical Assistance to the Greater Mekong Subregion for Strengthening Malaria Control for Ethnic Minorities (Financed by the Poverty Reduction Cooperation Fund)

May 2005

ABBREVIATIONS

ADB	–	Asian Development Bank
CDC	–	communicable diseases control
EMG	–	ethnic minority group
GMS	–	Greater Mekong Subregion
LAO PDR	–	Lao People’s Democratic Republic
NMCP	–	national malaria control program
NMI	–	national malaria institution
PRC	–	People’s Republic of China
RETA	–	regional technical assistance
RTU	–	regional technical unit
SEARO	–	South-East Asia Regional Office
TA	–	technical assistance
WHO	–	World Health Organization
WPRO	–	Western Pacific Regional Office

TECHNICAL ASSISTANCE CLASSIFICATION

Targeting Classification	–	Targeted intervention
Sector	–	Health, nutrition, and social protection
Subsector	–	Health programs
Themes	–	Regional cooperation, inclusive social development
Subthemes	–	Human development, indigenous peoples

NOTE

In this report, "\$" refers to US dollars.

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I. INTRODUCTION

1. Since 1992, the Asian Development Bank (ADB) has been supporting the Greater Mekong Subregion (GMS) Economic Cooperation Program among the six GMS countries.¹ The Third Ministerial Conference of the GMS Initiative, held in Hanoi in April 1994, identified malaria control as one of the regional priorities. In 1999, the Mekong Roll Back Malaria partnership² was initiated to (i) reduce malaria mortality in the GMS by 50% by 2010 relative to 1998, and (ii) halt the progression of multidrug resistance. The program targets isolated ethnic minority groups (EMGs) and migrants with a high malaria burden, who often lack basic information, preventive measures, and appropriate treatment. ADB has been supporting the Roll Back Malaria Initiative through a regional technical assistance (RETA) from December 2000 to December 2004.³ In the GMS, ADB has developed strong partnership with the World Health Organization (WHO) for the control of communicable diseases.⁴

2. A joint mission of ADB and the WHO Western Pacific Regional Office (WPRO) in December 2004 reviewed the achievements and lessons learned of the Initiative, which focused on behavioral change communication for promoting treated bednets. Representatives of the six GMS countries proposed capacity building of national malaria institutions (NMIs) to adjust malaria control strategies to the needs of EMGs, and mainstream malaria control for ethnic minorities in the national malaria control programs (NMCPs). ADB's GMS Regional Cooperation Strategy and Program includes a RETA for strengthening malaria control for ethnic minorities, for \$750,000⁵ in 2005.⁶ The design and monitoring framework is in Appendix 1.

II. ISSUES

A. Regional Challenges and Opportunities

3. The GMS countries are committed to achieving the Millennium Development Goals by 2015, including the reduction of child malnutrition and mortality, maternal mortality, and halting or beginning to reverse the trend of HIV/AIDS,⁷ malaria, and other communicable diseases. Substantial progress has been made in malaria control in the region. The annual malaria incidence in the Mekong locations ranges from zero to 200 cases per 1,000 people per year, with an average of 15–30 cases per 1,000 people per year. About 2 million people suffer from malaria each year, and about 100,000 of them require hospital treatment. The health and economic impact of malaria remains considerable. Malaria remains a major cause of mortality in the region, with an estimated 20,000 deaths in the region each year, despite the availability of simple and cost-effective interventions to control it. It also causes anemia, low birth weight, substantially reduced productivity and learning, and income erosion for medical care.

¹ Cambodia, People's Republic of China (PRC), Lao People's Democratic Republic (Lao PDR), Myanmar, Thailand, and Viet Nam.

² The partnership includes the GMS countries and four aid agencies: ADB, Japan International Cooperation Agency, United Nations Children's Fund, and WHO.

³ ADB. 2000. *Regional Technical Assistance for the Roll Back Malaria Initiative in the GMS*. Manila. This RETA (5958) mainly focused on behavioral change communication to promote the use of treated bednets.

⁴ WHO Western Pacific Regional Office (WPRO) based in Manila covers, among the GMS countries, Cambodia, PRC, Lao PDR, and Viet Nam. WHO South-East Asia Regional Office (SEARO) based in New Delhi covers, among the GMS countries, Myanmar and Thailand.

⁵ Poverty Reduction Cooperation Fund of the Government of the United Kingdom.

⁶ The TA first appeared in *ADB Business Opportunities* (Internet edition) on 28 January 2005.

⁷ Human immunodeficiency virus/acquired immunodeficiency syndrome.

4. Malaria has been brought under control in most of the cultivated lowlands of the GMS where the majority of people reside, with the exception of Myanmar. The malaria prevalence is much higher in the hills and forests of the region. It is estimated that about 36% of the GMS population live in malaria-endemic areas with inadequate vector control. Those living there include ethnic minorities, settled migrants, and forest workers. The most vulnerable among them are pregnant women, young children, and very poor and malnourished people.⁸

5. Ethnic minorities are not only more vulnerable due to their environment, but also due to lack of education, poor health and nutrition status, lack of assets, lack of recognition of being poor, and in general not being familiar with the ways of the modern world. Ethnic minorities often spread out in two or more countries and have their own language, customs, and practices. They often lack physical, social, and financial access to public health programs. In some communities, opium poppy eradication programs may have required them to grow alternative crops at lower altitude, thereby increasing their exposure to malaria.

6. Migrants are more susceptible to malaria than indigenous people as they lack immunity, usually coming from lowlands where malaria has been brought under control. Some migrants are ethnic minorities migrating from malaria-free higher altitudes. This increases the pool of infected people and also increases the risk of spreading the disease as these people travel more. Combined with inappropriate use of medicines, this has resulted in increased transmission of malaria, including of drug-resistant strains. The Mekong region is the global hot-spot for malaria drug resistance, which makes it even more important to bring malaria under control in the GMS.

7. People can largely protect themselves by adopting simple, preventive measures against malaria, in particular by using long-lasting impregnated bednets costing \$10 per net for two or three people, and lasting for up to 10 years. The use of bednets varies considerably, with the poorest using them the least. While government spending on the purchase of drugs has been substantial, spending on subsidized bednets, at a small cost and with many years of impact, has largely been neglected. Fortunately, there is an increased readiness to expand malaria prevention. Malaria control also depends on the particular customs of EMGs. While the technology is available and education materials have been developed, malaria control strategies for EMGs incorporating these various aspects still need to be tested for a variety of conditions.

8. The countries have well-established NMIs responsible for implementing NMCPs. More recently, NMCPs have started receiving substantial external funding from the Global Fund to Fight AIDS, Tuberculosis and Malaria, mainly for basic procurement of equipment and supplies. This follows a large regional malaria control program funded by the European Community, which ended in 2002. While this assistance has improved the capacity of NMIs for implementing the NMCPs, they lack expertise in addressing the diversity of needs and conditions of ethnic minorities living in isolated locations. Provided they can develop the ability to reach these people, funding from the Global Fund can be accessed to scale-up the NMCPs. However, the Global Fund mechanism is less suitable for capacity building. Therefore, targeted support is needed to help the NMIs strengthen NMCPs to better address the specific needs of ethnic minorities.

⁸ ADB. 1998. *Technical Assistance for Study of the Health and Education Needs of Ethnic Minorities in the Greater Mekong Subregion*. Manila.

9. The RETA for the Roll Back Malaria Initiative (footnote 3), ADB's first regional experience for communicable diseases control in the GMS, generally did well. For the purpose of promoting treated bednets for malaria control in EMGs, it focused on developing user-friendly education materials for malaria control for ethnic minorities, behavioral change communication, capacity building of NMIs in this field, and initiating regional collaboration. A next step will be to develop comprehensive malaria control strategies for EMGs, so that efforts for EMGs can be scaled-up. Rather than doing so through external consultants, it is important to build operations research capacity of NMIs to develop malaria control strategies for any EMG. Specific efforts will be needed to mainstream these strategies in NMCPs. NMIs also want access to know-how, share information, and learn from experiences, so as to be able to strengthen and expand their malaria control efforts for EMGs. While regional collaboration between NMIs has been initiated, this has not yet been institutionalized as a regular feature of administration and budget.

10. ADB is developing substantial regional experience. Following the RETA for the Roll Back Malaria Initiative, it provides regional support for HIV/AIDS control, and is planning to continue doing so with funding of the Swedish International Development Cooperation Agency.⁹ With WHO, it is implementing a regional disease surveillance and response project,¹⁰ and is preparing a GMS regional communicable diseases control project for Cambodia, Lao PDR, and Viet Nam, that would greatly benefit from this RETA. With strong commitment from national institutions, these regional projects have done well.

11. A regional approach is most appropriate for developing strategies for malaria control for EMGs. First, malaria, being a vector-borne disease, crosses borders. It spreads more readily as connectivity improves and migrant workers move to new settlements, thereby also increasing exposure of indigenous communities. People living in border areas, many of them ethnic minorities, share similar problems and customs. Regional coordination will benefit them in terms of coordination of programs across borders, learning what works best for them, and preparing education materials. Exchanging experiences can also strengthen commitment and improve efforts for malaria control at national level, and can help shape policies and strategies for malaria control. Malaria control would also benefit from standardizing medicines and services across borders, so as to create transparent quality standards. These activities require institutional strengthening and technology development that would benefit from using academic institutions in the region. Regional collaboration will also help develop the region's own capacity. Lastly, recent disease outbreaks of avian influenza and severe acute respiratory syndrome have created a strong political will for regional coordination to control communicable diseases.

III. THE TECHNICAL ASSISTANCE

A. Impact and Outcome

12. The Project's goal is to reduce the burden of malaria among poor ethnic minorities living in malaria-prone locations in the GMS, thereby helping to reduce child and maternal mortality. The objectives are to (i) build capacity of NMIs to develop acceptable, affordable, and effective strategies for malaria control for ethnic minorities; (ii) scale-up malaria control efforts for these populations through NMCPs; and (iii) promote regional collaboration for malaria control. The

⁹ ADB. 2001. *Grant Assistance to the Kingdom of Cambodia, Lao People's Democratic Republic, and Socialist Republic of Viet Nam for Community Action for the Prevention of HIV/AIDS*. Manila. See also footnote 5.

¹⁰ ADB. 2003. *Technical Assistance for Emergency Regional Support to Address the Outbreak of Severe Acute Respiratory Syndrome*. Manila.

project period is 24 months. The Project will directly benefit ethnic minorities by reducing the burden of malaria in selected EMGs; by adapting appropriate models of malaria control; by expanding malaria control efforts for EMGs through NMCPs; and by enhanced regional learning and collaboration for malaria control.

B. Methodology and Key Activities

13. The Project will field-test malaria control strategies for EMGs on a pilot basis, including their costs and effectiveness, and seek to integrate these in NMCPs in the six GMS countries. NMIs will be engaged to take the lead in the Project from its onset. NMI staff will work on project documentation, design, fieldwork, and evaluation using a participatory approach. The engagement of NMIs is to ensure long-term sustainability, and also to ensure that the concerns of ethnic minorities and regional collaboration are mainstreamed into NMCPs.

14. **Build Capacity of NMIs to Develop Malaria Control Strategies for EMGs.** During the first half year, NMCP staff will be given training in participatory field-testing of malaria control strategies. The malaria experts will make an inventory of behavioral change strategies in communities, and their costs. A regional training workshop will be held to discuss lessons learned, teach operations research methodologies and planning, and compare and improve study designs. Six field sites will be selected representing poor ethnic minorities with high malaria mortality. Behavioral and malaria prevalence baseline information will be collected in the selected sites. A comprehensive care package will be provided for 1 year, followed by a second round of data collection after 12 months. The findings will be used to strengthen operations research in the design of strategies for malaria control for EMGs.

15. **Scale-up Malaria Control Efforts for EMGs through NMCPs.** NMCP staff will be trained for scaling-up malaria control for EMGs living in isolated, malaria-prone locations. After the fieldwork, national workshops will be held to review lessons learned and review behavioral change strategies, interventions, and health system requirements for malaria control in these target groups. Staff and beneficiaries will share the outcome of the field tests with Government officials, nongovernment organizations, research institutions, the private sector, and aid partners. NMCPs will establish a process of appraising and improving strategies for scaling-up malaria control efforts for the target groups. Strategies will be compared, simplified, and synthesized to the extent possible, and linked to guidelines and cost estimates for scaling-up. NMCPs will also plan and conduct advocacy activities for malaria control for these target groups, e.g., information of key officials, a public website, and other public activities.

16. **Promote Regional Collaboration for Malaria Control.** Stakeholders will evaluate the benefits and constraints of regional collaboration as a model for health sector collaboration in the health sector, and identify priorities and opportunities. NMCPs will also be encouraged to learn from other countries and foster an overall regional strategy, to be improved from time to time. Guidelines encompassing commonalities and differences for malaria control among EMGs will be shared among stakeholders and disseminated through existing websites.

C. Cost and Financing

17. The total cost of the TA is estimated at \$980,000. The amount of \$750,000 equivalent will be financed on a grant basis by the Poverty Reduction Cooperation Fund (PRF), and administered by ADB. This will finance consulting services, pilot testing, training, workshops and advocacy, and studies. WHO will provide \$130,000 equivalent for consulting services and workshop support. The six participating countries will contribute the equivalent of \$100,000 in

kind, including for counterpart staff, office accommodation, and utilities. The cost estimates and financing plan are in Appendix 2.

D. Implementation Arrangements

18. ADB (Mekong Department Social Sectors Division) will be the Executing Agency for the TA. The regional steering committee for the Roll Back Malaria Initiative will guide project implementation. In each country, an existing steering committee of the Ministry of Health will review progress, and guide project activities. The NMIs will be the national implementing agencies, and will implement TA activities using existing programs and staff, supplemented with part-time malaria expert who will work as research assistants. A small regional technical unit will be set up in Vientiane for the team leader and malaria expert. The regional technical unit will be responsible for coordinating TA implementation and providing technical inputs to NMIs, such as for study design and surveys, training and advocacy activities, and making plans to scale-up. A participatory process will be followed in project implementation.

19. It is proposed that WPRO of WHO be appointed as the overall implementing agency. WPRO has extensive experience in malaria control, follows a bioregional approach with the WHO South-East Asia Regional Office (SEARO) for malaria control in the GMS, and has the capacity to provide administrative and technical backstopping. ADB will make a total of 24 person-months of international expert services available including a team leader/social scientist (18 person-months), and a malaria expert (6 person-months). These experts will be recruited individually by WHO in consultation with ADB, and in accordance with ADB's *Guidelines on the Use of Consultants* and other arrangements for the engagement of domestic consultants. WPRO will support an epidemiologist (2 person-months), a medical entomologist (2 person-months), and a medical anthropologist (2 person-months) on a parallel basis. ADB and WHO will jointly supervise all consultants, who will report to both ADB and WHO. The outline terms of reference are in Appendix 3. WHO will also provide support for knowledge management and data analysis for field studies. Minor equipment including computers, printers, fax machines, telephone, and office supplies will be procured under the TA in accordance with ADB's *Guidelines for Procurement*. On completion of the TA, equipment will be transferred to the NMCPs.

20. Within 5 days of the end of each month, the team leader will submit to ADB and WHO a 1–2 page TA status report by e-mail, in a format agreed with ADB at the time of contracting. Within 3 months of the onset of the TA, the team leader will submit an inception report including a review of malaria control in the region, lessons learned, plans for capacity building and field studies, and project implementation schedule and arrangements. Thereafter, the team leader will submit reviews at 6, 12, and 18 months. After 21 months, the team leader will submit the draft project completion report for strengthening malaria control for ethnic minorities, and institutional arrangements for regional coordination. The Project will start in June 2005 and will be completed by June 2007.

IV. THE PRESIDENT'S DECISION

21. The President, acting under the authority delegated by the Board, has approved ADB administering technical assistance not exceeding the equivalent of \$750,000 to the Greater Mekong Subregion to be financed on a grant basis by the Poverty Reduction Cooperation Fund for the Strengthening Malaria Control for Ethnic Minorities, and hereby reports this action to the Board.

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
<p>Impact Reduced malaria burden among poor EMGs living in malaria-prone areas in the Greater Mekong Subregion</p>	<p>Malaria prevalence in EMGs in pilot areas reduces by half in 1 year.</p>	<p>Survey</p>	<p>Assumption</p> <ul style="list-style-type: none"> • Similar environmental conditions prevail during before and after survey.
<p>Outcome</p> <ol style="list-style-type: none"> 1. Build capacity of NMIs to develop malaria control strategies for poor EMGs. 2. Scale-up malaria control efforts for poor EMGs through NMCPs. 3. Promote regional collaboration for malaria control. 	<ol style="list-style-type: none"> 1. NMIs prepare malaria control strategies for targeted poor EMGs 2. NMIs endorse scaled-up malaria control plans for poor EMGs 3. NMIs establish a mechanism for ongoing regional collaboration for malaria control 	<p>Reports of NMIs</p> <p>Reports of NMIs</p> <p>Reports of NMIs</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • EMG-specific malaria strategies are relevant and feasible. • NMIs give priority to malaria control for poor EMGs. • MOHs are willing to commit resources to sustain regional collaboration for malaria control.
<p>Outputs</p> <ol style="list-style-type: none"> 1.1 Trained NMI staff in developing strategies for EMGs 1.2 Field-tested strategies in six EMGs 2.1 Plans for scaling-up malaria control for poor and remote living EMGs 2.2. Stakeholder support for scaling-up malaria control for these target groups 3.1 Understanding of possible benefits and constraints of regional collaboration 3.2 Establishment of a sustainable mechanism 	<ol style="list-style-type: none"> 1.1 Eighty percent of staff passes competency test for designing a field test 1.2 Completion of six field tests as per design 2.1 Six NMI approve plans for scaling-up malaria control in EMGs 2.2 Media disseminate special reports on malaria control for these groups as per agreed plan 3.1 Six countries identify regionally relevant common approaches to collaboration 	<p>Project report</p> <p>Project report</p> <p>Project report</p> <p>Radio, television, and newspapers</p> <p>Workshop report</p> <p>Budgets</p>	<p>Assumptions</p> <ul style="list-style-type: none"> • Staff turnover is modest. • Documentation is available. • Strategies are within NMCP design. • Models are relevant for other ethnic minorities. • Media are interested. • Strategies cannot be standardized. <p>Risk</p> <ul style="list-style-type: none"> • Budget constraints

Design Summary	Performance Targets/Indicators	Data Sources/Reporting Mechanisms	Assumptions and Risks
for regional collaboration	3.2 Active website accessible in six countries		
Activities 1.1.1 Review of available documentation on malaria control for EMGs 1.1.2 Design and implementation of training program 1.2.1 Field study of design and data analysis including before and after surveys 1.2.2 Implementation of comprehensive care plan 2.1.1 Workshops to design malaria control strategies for EMGs 2.2.1 Workshops with media coverage for mobilizing stakeholders 3.1.1 Regional workshop and field visits 3.1.2 Design and testing website and mechanism for knowledge management			Inputs ADB (NPRS/PRF), \$750,000 WHO, \$130,000 equivalent MOH, \$100,000 equivalent in kind

ADB = Asian Development Bank, EMG = ethnic minority group, MOH = Ministry of Health, NMCP = national malaria control program, NMI = national malaria institution, National Poverty Reduction Strategy/Poverty Reduction Cooperation Fund, WHO = World Health Organization.

COST ESTIMATES AND FINANCING PLAN
(\$'000)

Item	Total Cost
A. Poverty Reduction Cooperation Fund Financing^a	
1. International Consultants	
a. Remuneration and Per Diem	278.4
b. International and Local Travel	31.0
c. Reports and Communications	9.0
2. Equipment ^b	10.9
3. Pilot Testing	151.2
4. Training	72.0
5. Workshops and Advocacy ^c	64.5
6. Surveys, Studies, Monitoring and Evaluation	57.0
7. Miscellaneous Administration and Support Costs	36.0
8. Contingencies	40.0
Subtotal (A)	750.0
B. World Health Organization	
1. Consultants	110.0
2. Workshops	10.0
3. Other Support	10.0
Subtotal (B)	130.0
C. Government Financing^d	
1. Office Accommodation and Utilities	36.0
2. Remuneration and Per Diem of Counterpart Staff	54.0
3. Others	10.0
Subtotal (C)	100.0
Total	980.0

^a Administered by the Asian Development Bank.

^b Computers, printer, fax machine, photocopier, and software.

^c National and subregional levels.

^d Cambodia, People's Republic of China, Lao People's Democratic Republic, Myanmar, Thailand, Viet Nam
Source: Asian Development Bank estimates.

OUTLINE TERMS OF REFERENCE

A. Asian Development Bank-supported

1. Team Leader/Social Scientist (international, 18 person-months)

1. The consultant will have a background in social sciences, experience with behavioral change programs for ethnic minorities groups (EMGs) in Southeast Asia, and have strong leadership skills, organizational capabilities, and financial management experience. The consultant will have the following responsibilities:

- (i) Liaise with the six national malaria institutions (NMIs), Asian Development Bank (ADB), World Health Organization (WHO), and other agencies. Facilitate a participatory planning process to plan, organize and implement the technical assistance (TA), and establish the regional steering committee.
- (ii) In coordination with the NMIs, ADB, WHO, and the malaria expert, recruit research assistants to assist in the implementation of field studies.
- (iii) Conduct day-to-day coordination of the TA with the NMIs; manage consultants; and organize regional meetings, workshops and training of local malaria experts.
- (iv) Jointly with the malaria experts and in consultation with the NMIs, prepare an implementation plan (inception report) for the TA. Work with the malaria expert to assess capacity of NMIs, identify lessons learned, and identify appropriate malaria control strategies for EMGs.
- (v) In particular, summarize lessons learned with regard to public health programs for EMGs, identify good practices for promoting public health in EMGs, and identify key behavioral change challenges for malaria control in these communities.
- (vi) Prepare an implementation and evaluation plan for field-testing strategies for malaria control, in particular the behavioral change component, for EMGs; and coordinate the testing and evaluation of strategies for malaria control in EMGs.
- (vii) Help NMCPs to conduct advocacy and training activities for improving malaria control in ethnic minorities and other support for capacity building of NMCPs.
- (viii) Prepare brief monthly action plans and report on the progress of the Project and submit to the NMIs before the fifth day of each month and submit this by e-mail to ADB and WHO.
- (ix) Ensure on-time submission of formal written reports, including the inception report proposing the overall situation analysis, work plan and staff schedule, a midterm report after 9 months, a draft final report 1 month before completion, and a final report at the time of completion of the Project.
- (x) Carry out project administration, including timely procurement and deployment of necessary project supplies and equipment, and financial management.

2. Malaria Expert (international, 6 person-months)

2. The consultant will be a senior public health expert with extensive experience in malaria control programs, operations research, and regional collaboration, preferably in Southeast Asia. The consultant will assist the team leader with the design and evaluation of the field studies, capacity building of NMIs, and developing a regional strategy for malaria control among EMGs. The expert will help prepare the project implementation plan (inception report), and the evaluation of field studies and capacity building. Specifically, the consultant will have the following responsibilities:

- (i) As part of the inception report, summarize the malaria control profile for the region that clearly identifies the trend in malaria control in general and in EMGs and migrants. Examine key challenges for malaria control in these communities, review effectiveness of current strategies and interventions, and identify priorities, knowledge, and implementation gaps for malaria control.
- (ii) As part of the inception report, assess the institutional and technical capacity of the NMIs in general and to deal with EMGs in particular, and identify needs, resources and resource requirements for strengthening these. Propose capacity building of NMCPs and mainstreaming malaria control for ethnic minorities. Provide training for the NMCPs, experts and others as appropriate. Evaluate the component.
- (iii) As part of the inception report, develop the study design for field-testing comprehensive malaria control strategies for EMGs, and carry out the evaluation.
- (iv) Propose scaling-up malaria control in EMGs through field-testing of strategies; policy development, advocacy, capacity building, and investment, using existing public and private services. Prepare a TA evaluation report.

B. World Health Organization-supported

1. Epidemiologist (international, 2 person-months)

3. The consultant will have the following responsibilities:

- (i) Provide training of counterparts.
- (ii) Analyze the epidemiological situation in selected remote communities and recommend appropriate strategies for malaria control.
- (iii) Help design and implement surveys using key epidemiological indicators to measure the impact of malaria control interventions.
- (iv) Help design and help implement strategies for comprehensive care and methods of delivery for the EMGs.
- (v) Help monitor the effectiveness of malaria treatment.
- (vi) Advise the community organizers and local medical and health staff on malaria treatment.

2. Medical Entomologist (international, 2 person-months)

4. The consultant will have the following responsibilities:

- (i) Provide training of counterparts.
- (ii) Carry out entomological studies of malaria vectors in the project areas.
- (iii) Help design and implement strategies to improve vector control in these locations.
- (iv) Help design regular monitoring to measure the impact of the selected malaria control interventions including the effectiveness of insecticide treated mosquito nets.
- (v) Identify the possible negative environmental impact of the Project and a cost-efficient and technically appropriate mitigation strategy for the use of insecticides.

3. Medical Anthropologist (international, 2 person-months)

5. The consultant will have the following responsibilities:

- (i) Provide training for counterpart staff.
- (ii) Undertake a comprehensive review of health practices and health seeking behavior regarding malaria control in EMGs, including a review of social norm and gender differences in responding to different health concerns.
- (iii) Help carry out surveys of behavioral change for malaria vectors in the project areas.
- (iv) Help design and implement strategies to improve preventive measures for malaria control.
- (v) Design regular monitoring to measure the impact of the behavioral change communication.