



RMT & CMT Manual

Implementing the “GLOBE Engaging Citizens in the Forecasting and Observation of Mosquito Threats”:
A Guide for ***Country Coordinators (CCs)*** and ***Master Trainers (T1)***

Sponsored by:  Supported by:    Implemented by:  UCAR

Dear Country Coordinators (CCs) and Trainers,

The GLOBE Implementation Office is pleased that you will participate in the “GLOBE Engaging Citizens in the Forecasting and Observation of Mosquito Threats” project. This is a two-year project through the support of the United States Department of State.

This manual provides the planning and tracking forms to monitor the Country Mosquito Trainings (CMTs) at the country-level and the Local Mosquito Workshops (LMWs) at the local level within countries.

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The RCOs will be responsible for gathering information from CCs to report to UCAR/GIO on a monthly basis. Updated metrics will be due by the first day of every month. These forms and documents are meant to serve as a tool; please feel free to adapt as you see fit.

Thank you for your participation in this project.
The GLOBE Implementation Office

Welcome Letter from GLOBE

To: GLOBE Country Coordinators

From: Dr. Tony Murphy, GLOBE Implementation Office, Director

Re: *GLOBE: Engaging Citizens in the Forecasting and Observation of Mosquito Threats*

Date: February 12, 2018

Dear Country Coordinators:

I am very pleased that you have agreed to participate in the *GLOBE: Engaging Citizens in the Forecasting and Observation of Mosquito Threats* project. GLOBE is undertaking in partnership with the U.S. Department of State's Bureau of Oceans and International Environmental and Scientific Affairs (OES). Over the next two years, the project will be pushing the edge of citizen science impact, aiming to enlist thousands of students, teachers, and community leaders to collect data on mosquitos for a global mapping project. The project also will build sustainable networks of schools, organizations and public health officials in each Zika-affected region to improve tracking and control of disease and make the data available for use by international partners, as well as local public health officials charged with curbing mosquito-borne diseases such as Zika. We have an ambitious target of 100,000 data submissions contributed in 2018, a unique database that can be used to prevent, detect and respond to vector-borne disease threats. We plan immediate implementation in countries in three GLOBE regions: Africa, Asia and the Pacific, and Latin America and the Caribbean.

The project will begin with train-the-trainer Regional Mosquito Trainings (RMT) where GLOBE will introduce the scope of the project, and participants will learn about the GLOBE Mosquito App as a means to identify mosquito larvae to inform identification and elimination of breeding sites. Discussions will include follow-on plans and activities. Follow-on plans will include organization of six Country Mosquito Trainings (CMTs) in the initial countries and Action-Based Grants, eligible to CMT participants, to carry out a Zika elimination project in their communities. The project will encourage STEM studies and will raise awareness in communities of protective measures they can take against mosquito-borne infectious disease as well as improving our understanding of mosquitos and disease risks they pose.

We are very pleased that you are attending an RMT in your region and will participate in this multi-tier project. GLOBE also will financially support six follow-on CMTs in your country that must be held by 15 August 2018. GLOBE will provide the necessary equipment for CMT participants. The State Department will assist embassies and

consulates in selected countries to support training and establish contact with host country public health officials.

GLOBE is very excited about the opportunity to contribute to international efforts to halt this increasing worldwide threat and to working with you to demonstrate the power of GLOBE in understanding and addressing Zika other mosquito-borne diseases. I look forward to hearing from you confirming your country's participation in this exciting project and would appreciate receiving your response by 1 March 2018.

Sincerely,

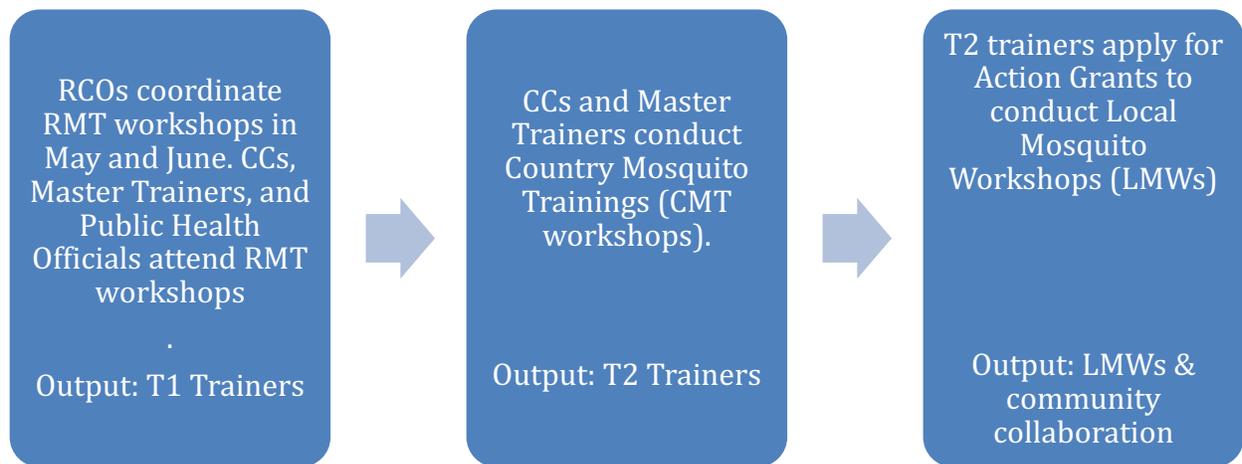
Dr. Tony Murphy

Cc: Kristin Wegner, Project Manager
Lyn Wigbels, GLOBE International Coordinator
GLOBE Regional Coordinator

Project Overview

How does this project work?

The project will be implemented through a multi-phase ‘Train-the-Trainer’ model at the regional, country, and local level. The GLOBE Implementation Office, Regional Coordination Offices, and Country Coordinators are responsible for implementation of the project.



Project Key

Here are some of the terms used in this project:

CC	Country Coordinator
CMT	Country Mosquito Training
DoS	U.S. Department of State
GIO	GLOBE Implementation Office
LMW	Local Mosquito Workshop
RCO	Regional Coordination Office
RMT	Regional Mosquito Training
T1	Trainers trained at the RMTs
T2	Trainers trained at the CMTs

What opportunities are there for country participation?

- Access to Zika education and prevention resources, include the GLOBE Mosquito Habitat Mapper App, related satellite images, data visualization tools and training and educational resources
- Attend Regional Mosquito Trainings
- Conduct/attend Country Mosquito Trainings
- Connect to your local Public Health Officials, US embassy, and scientists
- Apply for Local Action Grants and conduct/attend Local Mosquito Trainings
- Support students to:
 - Conduct research and submit research to the International Virtual Science Symposium
 - Apply to attend face-to-face GLOBE Annual Meetings
 - Participate in Virtual Exchanges via U.S. Embassy's American Spaces programs

What is an RMT?

The project will begin with three train-the-trainer Regional Mosquito Trainings (RMTs) -- one each for Asia and Pacific, Latin America and Caribbean, and Africa regions – in May and June 2018. At the RMTs GLOBE will explain the project and train master trainers, public health officials, and other participants on how to use the GLOBE Observer Mosquito Habitat Mapper App to identify mosquito larvae, eliminate breeding sites, and upload data and photos to the GLOBE database to make the crowdsourced data available to national and international scientists to improve tracking and control of disease. At the RMTs, there will be time allotted for developing detailed, supported planning of Country Mosquito Trainings (CMTs).

What is a CMT?

Upon participation in the RMTs, T1 trainers conduct Country Mosquito Trainings (CMTs) in their country.

Who attends CMTs?

- Local Public Health Officials
- Scientists
- Teachers
- Community Leaders

What is the purpose of the CMTs?

At the CMTs, the T1 Trainers will train the T2 trainers in the app (data collection, entering in data, visualizing data) and how to implement the program in their local community. T2 participants are eligible to apply for and receive Action Based Grants to support Local Mosquito Workshops.. The following documents serve as a guide to conducting CMTs and tracking the progress of CMT participants.

What is the criteria for the CMTs?

- Location (need to be spread out, hard-to-reach geographical locations the CMTs cannot be held in the same location)
- Number of participants, types of participants

For your consideration:

Pre-CMT Checklist

- Develop CMT Implementation Plan
- Set up a workshop in the globe.gov tool
- Promote your CMTs
- Have CMT participants take pre-training survey

Post-CMT Checklist

- Conduct post-workshop survey with CMT participants
- Report Participant Names
- Have CMT participants take post training survey

CMT Implementation Plan Signature Form

As you go through the CMT Implementation Plan, you can use this form to make sure your team has consulted with each reviewer. You will need signatures from each person in order to qualify to receive funds for the CMTs.

CMT Trainer(s): CMT Locations: CMT Dates:
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Note: CMTs must be completed by August 15, 2018.

Please have each of the following people review your Implementation Plan. You will need a signature from each person in order to carry out your plan.

CC & RCO Letter of Commitment
RCO, _____ CC _____
CC Tracking Document of CMTs
GIO International Coordinator (Lyn Wigbels) _____ GIO Project Manager (Kristin Wegner) _____ Budget/Administration review _____
(Survey) NORC

CC & RCO Letter of Commitment

I, (name) _____, commit to ensuring that _____ CMTs will be conducted in my country by August 15, 2018.

I will either conduct the trainings myself or work with Master Trainers from my country that were trained at the RMT to train people in the GLOBE Mosquito Habitat Mapper App. I understand that my target goal for CMT participants is _____ per country, and that my country's Local Mosquito Workshop (LMW) goal is _____. I understand that I am responsible for ensuring that _____ Public Health Official (PHO) will attend each CMT.

I will promote Local Action Grants in my country. The CC will submit Local Action Grant proposals to the Regional Coordination Office (RCO) and help facilitate the local communities to obtain grants and carry out their project goals.

I will provide monthly reports to the RCO, including metrics of people trained at CMTs and LMWs. I will ensure CMT and LMW participants complete the pre- and post-workshop surveys.

Signed:

_____ (CC)

_____ (RCO)

CC Tracking Document of CMTs

This is a tool for CCs to track country goals.

Region: Africa Asia & Pacific Latin America and Caribbean

RCO Name:

Country:

CC Name:

CMTs to be conducted:

Target # of participants at each CMT:

total CMT participants:

total PHOs per CMT:

Proposed dates for CMTs

	Location	Description	# Participants	Total Cost
1.				
2.				
3.				
4.				
5.				
6.				

Sample CMT Agenda

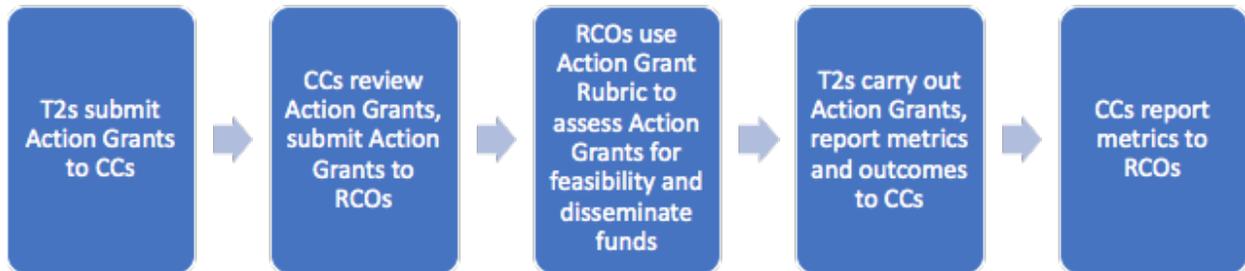
Note: You may ask your participants to prepare prior to the workshop (i.e. download the MHM app, conduct the pre-survey, do the e-Training Introduction to GLOBE and MHM slides)

Estimated Time Necessary	Topic
15 minutes	Pre-Workshop Survey
2 hour	Introductions GLOBE Overview <ol style="list-style-type: none"> a. Welcome and Introductions b. Introduction to GLOBE (for PHOs and Trainers) b. Zika Project Objectives and Desired Outcomes
3 hours	Hand out lenses to familiarize with app Project Overview <ul style="list-style-type: none"> - How it works - How to participate (collaborating with CCs, trainers, embassies) - Your responsibilities - CMTs - Administering local action grants - Survey administration - Keeping track of progress - Forms: <ul style="list-style-type: none"> • LMW tracker tool for reporting • LMW form for their plan • Community Action Projects (process, application form, rubric)

<p>4 - 5 hours</p>	<p>(Go outside first to contextualize it)</p> <p>Mosquito App Training</p> <ul style="list-style-type: none"> - Collecting data: mosquito larvae & Zika, types of larvae in your country/community - How to use the app to report mosquito larvae data and the eradication of breeding sites - Equipment (lenses, how to use the equipment)
<p>1 hour</p>	<p>Website training</p> <ul style="list-style-type: none"> - Website overview/Intro - GLOBE Mosquito Page, FAQs
<p>15 minutes</p>	<p>Post-Workshop survey</p>
<p>1 hour</p>	<p>Using GLOBE & NASA resources</p> <ul style="list-style-type: none"> - GLOBE protocols (soil moisture and temperature, air moisture temperature, and precipitation) - Satellite images - Accessing data (ADAT, visualization, etc.) - GLOBE mosquito data - Other protocols that may be used for mosquito prediction/analysis (precipitation, temperature, land cover) - E-Training slides
<p>2-3 hours</p>	<p>Create an Action Plan for Local Mosquito Workshops</p> <ul style="list-style-type: none"> - Engaging in your community <ul style="list-style-type: none"> • Collaborating with schools and public health officials • Collaborating with US Embassy or Peace Corps • Training • Data collection • Development of action grants - Review colleague's action plans
<p>2 hours</p>	<p>Action Plan Presentations</p>

Action Project Grant Proposal Timeline

- June - August, 2018: T2s apply for Action Grants by submitting Action Grant Proposals to CCs



What is a Local Mosquito Workshop?

Local Mosquito Workshops (LMWs) are an opportunity to train local communities in the Mosquito Habitat Mapper app, to help them carry out the project, and to develop and apply for Sample Action Grants by using the proposal form below. LMW Action Grants can be used for trainings, purchasing GLOBE kits- including lenses to identify mosquito larvae, carrying out educational and outreach activities, supporting GLOBE Mosquito Habitat Mapper activities. You may focus the LMW on bundles of GLOBE protocols, carrying out mosquito elimination campaigns, promoting data campaigns, or partnering with new communities or organizations, including public health officials in your community or with local Peace Corps Volunteers.

Kits: Here are the materials required for trainings:

- Lenses for smartphones (provided)
- Gloves
- Turkey baster
- Pipette
- white plastic plates
- towels
- plastic baggies
- a sharpie marker
- a probe (bamboo skewers or toothpicks)
- vial to take home larvae, and ethanol to stun the specimens

Sample Community Action Project Grant Proposal Form

Region: RCO Name: Country: CC Name: Community Name: Action Grant Application Submitted By:

Total \$ USD Requested: _____

Date of Proposed Activity: _____

Title of Proposed Activity: _____

Proposed Activity

Description of proposed activity	
How will this activity impact the community?	
At risk - What is the level of risk the community faces from Zika or other mosquito-borne disease?	
Hard to reach - To what extent is the community assisted by other national or international mosquito control efforts?	
How many people will be trained in the GLOBE Mosquito Habitat Mapper app?	
How many data points will be collected by this activity?	
How many data points will be entered into the GLOBE database with this activity?	
How many lenses will be purchased?	
How will you document this activity and share updates with your CC? (photos, videos, slideshows)	

How will this activity sustain community elimination of mosquito breeding grounds and changes of community behavior to limit the spread of disease?	
Will you have students submit their research to the GLOBE International Science Symposium?	
How will you conduct the survey? Please include pre- and post-workshop plans to administer the survey, including technology needs and accommodations.	

Budget

Here are some sample categories for the budget. You may add or delete categories as you see fit.

Location	
Food	
Equipment	
Transportation	

Activity Participants

How many of the following people attended the activity?

Public Health Officials	
Public Health Workers (promoters, coordinators, etc.)	
Trainers	
Teachers	
Students (primary, secondary, university)	
Community members	

How many of the following people were impacted by the activity? How? (i.e. teachers trained 20 of their students, local public health officials worked with 10 public health promoters, etc.)

Public Health Officials	
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Public Health Workers (promoters, coordinators, etc.)	
Trainers	
Teachers	
Students (primary, secondary, university)	
Community members	

Do you need any support from the CC? If so, please describe support needed:

CC & LMW Lead Letter of Commitment

I, _____ (name), understand that I am responsible for reporting updates to the CC. I will provide metrics (monitor & evaluation numbers), receipts, participant lists, photos and videos, data submitted, and other information to the CC in a timely manner.

Signed: _____ (LMW Lead)

Signed: _____ (CC)

Need a training certificate here

Action Grant Proposal Form Rubric

	5	3	1
Proposed Activity	Activity description is clear, concise, and well-thought out and targets hard-to-reach, at-risk communities.	Activity is clearly written, but not well-thought out and does not target hard-to-reach or at-risk communities.	Activity needs more planning and description and needs to improve community targeting .
Funding	The funding request is clear and logical, a clear and reasonable budget is provided.	The funding request is clear, but has gaps or discrepancies. The budget is reasonable.	The funding request is not clearly described, and the budget is not reasonable.
Participants	The proposal includes the target number of participants, including Public Health Officials (PHOs), scientists, and a range of community members (teachers, students, public health workers).	The proposal includes an adequate number of participants, including Public Health Officials (PHOs), scientists, and a range of community members (teachers, students, public health workers).	The proposal includes a number of participants, including Public Health Officials (PHOs), scientists, and a range of community members (teachers, students, public health workers).
Impact	The proposal includes a high number of people impacted by the project. The impacts include strong, sustainable connections to eliminating mosquito breeding sites, change community behavior, and improve forecasting and control of Zika and other mosquito-borne diseases.	The proposal includes an adequate number of people impacted by the project. The impacts include some connections to eliminating mosquito breeding sites, change community behavior, and improve forecasting and control of Zika and other mosquito-borne diseases.	The proposal includes an adequate number of people impacted by the project. Few to no connections to eliminating mosquito breeding sites, change community behavior, and improve forecasting and control of Zika and other mosquito-borne diseases.

Using the Workshop Tool to set up CMTs and LMWs

CCs, T1s, and T2s are responsible for setting up workshops for the GLOBE mosquito protocol in the globe.gov website. This will ensure we gather information about project participants (name, email, home country, role, data entered, etc.). We will provide more information about the workshop tool at the RMT meetings. This is an abbreviated Workshop Tool tutorial. You can find more information about the Workshop Tool in the For Country Coordinators section of the GLOBE mosquitoes website or on the GLOBE Workshop FAQ page: <https://www.globe.gov/support/faqs/globe-workshops>.

Steps to setting up a workshop in a workshop tool:

- Unblock “pop-ups” in your browser (Chrome, Firefox, Safari)
- From the Workshop Management Tool select Create New Workshop
- A New Workshop form should open. Note that any field with an (*) is mandatory and must be filled in order to create and submit the workshop.
- Pick the organization hosting the workshop (please select your Country Coordinator’s organization)
- **Use the Workshop Location section to name the workshop. In this section, please write “GLOBE Zika” followed by the city and country or territory in which you are holding your workshop. (Ex. “GLOBE Zika Hanoi, Vietnam”)**
- Validate the address of the workshop (you will need to have a specific address within the town and country)
- Pick the maximum enrollment (we suggest 35)
- Select Workshop audience (teacher, Trainer, Master Trainer). This step is critical for making sure that participants of the workshop leave with the correct credentials following the workshop. Note: Since the first and second waves of workshops will be targeting trainers, the audience should be set to trainers.
- Trainers follow this process to mark all workshop participants as trained upon completion of the training:



1. Add GLOBE teacher to roster or "create account"
2. Mark “in-service” while in the training
3. Mark “trained” upon completion of the training
4. “Close” the training

Survey

The GLOBE Implementation Office (GIO) is working with an outside evaluator, NORC at the University of Chicago, an independent research firm located in the United States. For participants that choose to participate in the training, GLOBE requires that you complete an online self-administered Web survey. This survey is designed to evaluate the effectiveness of the training you receive at the workshop. It will ask you questions that measure changes in your knowledge, attitudes, and practices as a result of the GLOBE program. Questions are related to (1) reducing the risk of mosquito-borne disease; (2) your use of mobile applications; and (3) your use of the GLOBE database.

RMT participants will take a pre- and post-workshop survey. CCs and T1 trainers are required to administer the survey at Country Mosquito Trainings (CMTs) and subsequent Local Mosquito Workshops (LMWs).

The decision to take part in this research study is entirely voluntary. There are no foreseeable risks involved in participating in this study other than those encountered in day-to-day life. Your identity will be kept private. If the results of this study are written in a scientific journal, report or presented at a scientific meeting, your name will not be used. Responses from all participants will be presented in summary form only.

Participants from Initial Implementation countries will be invited to take the survey three times as part of this study – the first before they attend the workshop, the second at the end of workshop, and the final in 2019. The survey is expected to take approximately 15 minutes to complete. Your responses are very important to our project and will help us to improve the success of eliminating mosquito-borne diseases.

If you have any questions about this survey, you may email the NORC Survey Director Renee Hendley, at GLOBE@norc.org.

Sample Training Certificate

Resources

For more information and resources, go to: <https://www.globe.gov/web/globe-mosquito-project>.

Here you can find:

- e-Training slides
- Data visualization
- Frequently Asked Questions (FAQs) regarding equipment, the app, and how to participate

Additional questions, contact: mosquitoes@globe.gov