

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System



Name: ROD ALLAN DE LARA

Function: Country Coordinator (CC)

Organisation: Department of Science and Technology -
Philippine Science High School System

E-mail: radelara@pshs.edu.ph

Tel: +63-998-9606946

Website: www.pshs.edu.ph



Name: JOAN BILASANO CALLOPE

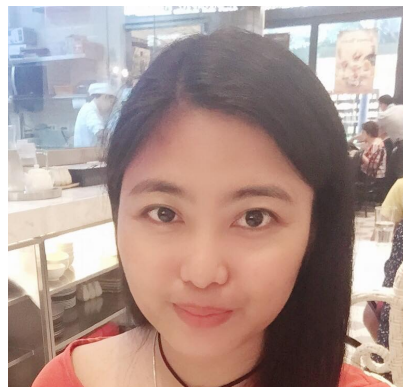
Function: Assistant Country Coordinator

Organisation: Batasan Hills National High School

E-mail: jbcallope1112@yahoo.com

Tel: +63-905-6627365

Website: <https://www.globe.gov/web/jbcallope1112>



I. COOPERATING ORGANIZATIONS AND PARTNER INSTITUTIONS

- Philippine Science High School
- Batasan Hills National High School
- Office of the City Mayor of Quezon City
- Quezon City Science Community Foundation Incorporation (QCSCFI)
- Department of Education Division of City Schools, Quezon City
- Department of Education Division of City Schools, Puerto Princesa
- Department of Education Division of Camarines Sur
- US Embassy Manila

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

II. GLOBE ACTIVITIES CONDUCTED

1. Quezon City CMT and Allied GLOBE Protocols, Teacher Training

Name/ Theme of Activity	GLOBE Zika Mosquito Protocol Training and Allied Protocol Training : Engaging Citizens in the Forecasting and Observation of Mosquito Threats
Venue	Quezon City Experience (QC-X) Museum, Quezon City Memorial Circle, Diliman, Quezon City
No. of Participants	Sixty-Seven (67) public school teachers from Eighteen (18) different schools from the Department of Education QC Division of City Schools.
Dates of Activity	September 8, 2018 (GLOBE Zika Training) September 9, 2018 (GLOBE Allied Protocols)
GLOBE Protocols Involved	Hydrosphere (Temperature, Turbidity, pH levels, Electric Conductivity, Collection of Water Samples, Mosquito), Atmosphere (Cloud), Pedosphere (Soil Temperature, Soil Covers, etc), Biosphere including Data Visualization, ADAT, and Use of Teacher Accounts
Highlights of The Activity	The event was in collaboration with the Philippine Science High School System, Batasan Hills National High School, the Office of the City Mayor of Quezon City thru the Quezon City Science Community Foundation Inc., the US Embassy Manila, and the Department of Education QC Schools Division. The event was observed by NORC, Chicago, U.S. A medical specialists conducted lessons on Mosquito Borne Diseases.
Problems Encountered	Wifi problems particularly during workshop registration. The bandwidth was overwhelmed by the number of participants registering at the same time. Despite numerous reminders to participants to pre-register themselves, majority of them decided to register on the day itself. The start of the training was delayed for 1 hour due to network problems. Additional routers were added later on. Post training surveys were not completed as a result of poor network.

1.1. Brief Description

The GLOBE Zika Mosquito Protocol Training and Allied Protocol Training was led by the Batasan National High School – the country’s largest high school in terms of student numbers with over 16,000 enrollments – in collaboration with Office of the City Mayor; the Quezon City Science Community Foundation Inc. (QCSCFI); the Philippine Science High School System, and the QC DepEd Schools Division. The two (2) day training event was attended by Sixty-Seven (67) public school teachers from 18 different schools in Quezon City, plus representatives from the City Health

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

Office. Quezon City was former capital of the Philippines and is the most populous city in the country with 2.9m residents. The city is also known as the “City of Star.”

1.2. Program of Activities

DAY ONE		DAY TWO	
Morning	Afternoon (Hands-on)	Morning (Fieldwork)	Afternoon (Using GLOBE Database)
Life Cycle of Mosquitoes	Using the Macrolens	GLOBE Protocols, Introduction and Background	Data Entry and Visualisation
Mosquito Borne Diseases and Vectors	Specimen Gathering	Data Gathering and Recording (Using the GLOBE Data Sheet)	Data Retrieval, ADAT – Using Filters
Larvae Types and Characteristics	Larvae Identification		Using and Managing Teachers Account
	Data Entry, Retrieval, Uploading and Visualisation		GLOBE Teaching and Learning Resources

2. Puerto Princesa, Palawan. CMT and GLOBE Community Fair

Name/ Theme of Activity	GLOBE Zika Mosquito Protocol Training and GLOBE Community Science Fair : Engaging Citizens in the Forecasting and Observation of Mosquito Threats
Venue	Skylight Convention Centre, Puerto Princesa City, Palawan
No. of Participants	Seventy Eight (78) Teachers for the GLOBE Zika Training; Sixty Nine (69) Participants for the GLOBE Community Science Fair
Date of Activity	September 29, 2018 (GLOBE Zika Training) September 30, 2018 (GLOBE Community Fair)
GLOBE Protocols Involved	Hydrosphere (Mosquito) including Data Visualization, ADAT, and Use of Teacher Accounts
Highlights of The Activity	The activity was held in conjunction with the National Science Research Summit of PSHS. All Sixteen (16) regions of the Philippines was represented in the Zika Training. A entomologist from the Research Institute of Tropical Medicine (RITM) conducted the lessons/ training on the behaviour of mosquito vectors, and ways to prevent and extinguish them.
Problems Encountered	Wifi problems particularly during workshop registration. The bandwidth was overwhelmed by the number of participants registering at the same time. Despite numerous reminders to participants to pre-register themselves, majority of them decided to register on the day itself. The start of the training was delayed for 1 hour due to network problems.

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

2.1. Brief Description:

The GLOBE Zika Mosquito Protocol Training and GLOBE Community Science Fair was held in conjunction with the “Philippine Science High School System Science Research Summit 2019” and was participated by Seventy-Eight (78) teachers from all Sixteen (16) regions in the Philippines, making this event a “Nationwide Training Event.” The GLOBE Zika Mosquito Protocol Training was held on 29 September 2018.

The GLOBE Community Science Fair was held on 30 September 2018. Its objective is to increase the public’s awareness about the GLOBE Program (and its activities), with emphasis on the GLOBE Zika Project. Sixty-Eight (68) walk-in guests registered and visited the GLOBE Program’s booth, and were given hands-on demonstration on how to use the Macro lenses in identifying and classifying mosquito larvae. They were also given pamphlets and brochures about the GLOBE Program. Most of the guests are public school teachers from the Department of Education (DepEd) Puerto Princesa Division.

2.2. Program of Activities

DAY ONE		DAY TWO	
Morning	Afternoon (Hands-on)	Morning (Fieldwork)	Afternoon
Life Cycle of Mosquitoes – Conducted by Entomologist Expert from the Research Institute for Tropical Medicine (RITM)	Using the Macrolens	GLOBE Community Fair and Information Drive. Hand-on Experience on the Use of Macrolens and Mosquito Larvae Identification	
Mosquito Borne Diseases and Vectors	Specimen Gathering		
Larvae Types and Characteristics	Larvae Identification		
	Data Entry, Retrieval, Uploading, and ADAT		

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

3. GLOBE CMT and Allied GLOBE Protocols – Bicol Region

Name/ Theme of Activity	GLOBE Zika Mosquito Protocol Training and Allied GLOBE Protocols : Engaging Citizens in the Forecasting and Observation of Mosquito Threats
Venue	Libmanan North Central School, Camarines Sur, Bicol, Philippines
No. of Participants	Four Hundred Thirty Five (435) public school teachers from the Department of Education Camarines Sur Schools Division
Date of Activity	October 13 - 14, 2018
GLOBE Protocols Involved	Hydrosphere (Temperature, Turbidity, pH levels, Electric Conductivity, Collection of Water Samples, Mosquito), Atmosphere (Cloud), Pedosphere (Soil Temperature, Soil Covers, etc), Biosphere including Data Visualization, ADAT, and Use of Teacher Accounts
Highlights of The Activity	The activity was held in conjunction with the “2018 Division Science Olympics, YES-O Training and Camp” by the Department of Education Camarines Sur Schools Division.
Problems Encountered	Wifi problems particularly during workshop registration. The bandwidth was overwhelmed by the number of participants registering at the same time.

3.1. Brief Description

The two (2) days training activity is one of the largest teacher training event held in Camarines Sur, Bicol Region in 2018, with Four Hundred Thirty Five (435) teacher participants coming from all public schools in the Camarines Sur Schools Division. The event was held in cooperation with the DepEd and in conjunction with the “2018 Division Science Olympics, YES-O Training and Camp.”

3.2. Program of Activities

DAY ONE		DAY TWO	
Morning	Afternoon (Hands-on)	Morning (Fieldwork)	Afternoon (Using GLOBE Database)
Life Cycle of Mosquitoes	Using the Macrolens	GLOBE Protocols, Introduction and Background	Data Entry and Visualisation
Mosquito Borne Diseases and Vectors	Specimen Gathering	Data Gathering and Recording (Using the GLOBE Data Sheet)	Data Retrieval, ADAT – Using Filters
Larvae Types and Characteristics	Larvae Identification		Using and Managing Teachers Account
	Data Entry, Retrieval, Uploading and Visualisation		GLOBE Teaching and Learning Resources

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

4. Philippine SMART City Summit : GLOBE Zika Project, October 17, 2018 at the ABS-CBN Vertis Tent, Vertis North, Quezon City.

On October 17, 2018 the GLOBE Zika Project was presented to a group of local and international delegates and dignitaries. Video presentation and live demonstration of the GLOBE Database System, as well as the global mosquito mapping project, were conducted. The City Government of Quezon City thru the Quezon City Science Community Foundation Inc., expressed support to adopt the GLOBE Zika Program as part of its Anti-Dengue Drive.

An undertermined number of local and foreign participants attended the presentation.

III. PARTICIPATION IN GLOBE REGIONAL EVENTS/ ACTIVITIES:

1. Participation in GLOBE Asia Pacific Region Country Coordinator's Meeting, Hanoi, Vietnam, May 6 - 9, 2018
2. Participation in GLOBE Zika Asia Pacific Region Training, Hanoi, Vietnam, May 10 - 11, 2018, with Three (3) teachers plus One (1) Country Coordinator.
3. Participation in 2018 Taiwan Science Festival, July 19 - 23, 2018 Taichung, Taiwan, With Twenty-One (21) Students and 10 Teachers including observers from the Department of Education. Four (4) research posters presented, plus One (1) robotic product demonstration:
 - a) Probing the ability of carbonised Mahogany (*Swietenia Macrophylla*) pericarp in stabilising the level of Hydrogen Ion reaction of soil horizons from different sites in Sito Bagsak;
 - b) The regulating effect of *Christella Arida* D. Don on the properties of selected freshwater sites at Barangay Batasan Hills;
 - c) Risk mapping of mosquitoes borne diseases in Batasan Hills, Quezon City;
 - d) Riparian zone analysis, macroinvertebrates biodiversity and water quality analysis of selected streams in Cabadbadan Agusan del Norte, Philippines;

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

- e) SmaShD : The Arduino-Based Shopping Device (Product Demonstration)

- 4. Media coverage GLOBE-Zika Project and acceptance of Donation from the US Embassy. Featured at the Philippine Star Newspaper, July 17, 2018. Attended by NASA Scientists, US Embassy Manila Officials, DOST Secretary, DTI Secretary and Undersecretaries, in conjunction with the National Science and Technology Week held at the World Trade Centre, Pasay City

- 5. Participation in 2018 Korea Science Festival thru GLOBE-Korea and the Korean Foundation for the Advancement of Science and Creativity, August 9 - 12, 2018. The Korea Science Festival is the country's largest science fair, drawing over 500,000 guests during the week long event. Thirteen (13) students and two (2) teacher chaperones attended the event.

VI. 2019 PLANNED ACTIVITIES

1. Implementation of Local Mosquito Workshop (June - October 2019)

Local Mosquito Workshops (LMWs) involves teaching/ training local communities on how to use the GLOBE Observer Mosquito Habitat Mapper app, to help them carry out the GLOBE Zika Project. Participants to LMW may include students, community health officers, barangay/community residents, teachers, local government officials, and others. The LMWs shall have the following broad objectives:

- a) To empower local communities in combating and mitigating the threats of mosquito borne diseases thru education and training;

- b) To contribute to the GLOBE Program's global Mosquito Mapping Project by mapping mosquito threats in their respective local communities;

The conduct of LMWs shall conform with the standards, rules and procedures indicated herein.

Over the next Eight (8) months (January to August 2019), the GLOBE Program in the Philippines aim to conduct at least Seventy Eight (78) LMWs nationwide

GLOBE COUNTRY REPORT

The Philippines

Implemented Through the Philippine Science High School System

covering all Sixteen (16) regions of the country, and upload at least Five Thousand One Hundred Sixty (5,160) unique mosquito data, in the GLOBE System, using the GLOBE Observer Mosquito App.

THE GLOBE PROGRAM (PHILIPPINES) LMW TARGETS AND COMMITMENTS

SUCCESS INDICATORS	TARGET NO.
Total Target Number of LMWs Conducted Nationwide.	78
Total Target Number of LMW Participants	1,320
Total Target Number of Unique Mosquito Data Uploaded	5,280
Target Geographical Coverage*	Nationwide, covering all 16 political regions of the country

** Does not include the Autonomous Region of Muslim Mindanao (ARMM), as it is a separate political geographic entity under the supervision of the ARMM government.*

2. NASA Airborne Science Team : 2019 CAMP2Ex (Cloud, Aerosol and Monsoon Processes Philippines Experiment) mission. September 12 - 13, 2019 at the Philippine Science High School Main Campus, Diliman, Quezon City; and Batasan Hills National High School, Barangay Batasan, Quezon City. September 14, 2019 at the Philippine Science High School Clark Campus, Pampanga City
3. 2019 GLOBE Science Fair, October 2019, in collaboration with the PSHS System, Batasan Hills National High School, and the Quezon City Science Community Foundation Inc.

Prepared by:

JOAN BILASANO CALLOPE
Batasan Hills National High School

ROD ALLAN A. DE LARA
Philippine Science High School System