



03 May 2021



The GLOBE Program in Asia - Pacific Region

**Highlight & achievements of doing GLOBE
Virtually in 2020**

Dr. Desh Bandhu, Ph.D
Coordinator,
GLOBE Asia - Pacific Regional Coordination Office



Summary of Programs in the Region

- Due to the COVID - 19 Pandemic all the face to face GLOBE activities were cancelled due to country wise lockdown & social distancing, and as a precaution for the community GLOBE Program also suspended all face to face meeting or data collection, as a result of this all the activities in the region was done virtually to keep the community engaged and to continue promoting the GLOBE Program in the region.
- Since **May 2020** to **March 2021** AP RCO has organized **18 Webinars** for GLOBE community in the Region.
- Some of the Regional highlight is mention in this presentation.



Webinar to increase regional engagement in GLOBE Program



Webinar on The GLOBE Program - New Trainer / Mentor Trainer Certification Process

- Asia-Pacific regional Office host webinar on **11th May 2020** for Country Coordinators and trainers in the region to explain to them the new GLOBE Certification Progress,
- Dr. Rod Allan De Lara, GLOBE Country Coordinator- Philippines & Member GLOBE Working Group explains why the new Trainer / Mentor Certification Process, he gave insight about the lack of community input and communication about the earlier process & The community not being aware of previous process (including qualifications and rubrics).
- Dr. De Lara explains the goals of new Trainer and Mentor Trainer Process. To Refine the process to be more streamlined, flexible, transparent, and accessible Guarantee the quality of Trainers throughout the GLOBE community.
- He also explain that by setting up the Mentor Trainer Certification procedure GLOBE Program will be able to Define Mentor Trainers as a resource to aid and advance the community of GLOBE trainers and can create a system for Mentor Trainers to communicate with each other to ensure the quality of mentorship throughout the GLOBE community.



THE **GLOBE PROGRAM**

Webinar Trainer/Mentor Trainer Certification Process

Education Working Group



Rod Allan de Lara

Sponsored by:  Supported by:    Implemented by:  UCAR

Dr. Rod Allan De Lara, CC- GLOBE Philippines & Member GLOBE Education Working Group explaining to the participants the New Trainer / Mentor Trainer Certification Process

21 participants joined the webinar.

Sponsored by:  Supported by:    Implemented by:  UCAR




Webinar on review of The Role of GLOBE Teachers

- AP RCO hosts webinar on *22nd May 2020* for Country Coordinators, trainers & Teachers in the region to review the Role of GLOBE Teachers and how they can help their students engaged in the GLOBE Program during the ongoing COVID - 19 pandemic.
- During the webinar and we shares how we can encourage teachers to do GLOBE by putting emphasis on the benefit & advantage of becoming a GLOBE Teacher.
- By training them to use GLOBE website its data base and other feature including GLOBE Observer App.
- By teaching them how to access and use GLOBE's Teaching & learning material and other resources. And also by training them by how to access and use GLOBE data for research purposes.








The GLOBE Program


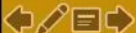


A Review of The Role of GLOBE Teachers

Joan B. Callope
Philippines

Philippines
22 May 2020

Sponsored by:  Supported by:    Implemented by: 



Ms. Joan. B. Callope presenting the role of GLOBE Teachers during the COVID - 19 Pandemic

24 participants from 9 countries joined the webinar

Webinar on June 02, 2020

- Asia – Pacific Regional Coordination Office organized a webinar on **2nd June 2020** for all the Countries in the region along with trainers and teachers during which two topics were discussed.
 1. **GLOBE Mosquito Habitat Mapper (ZIKA Project)** presented by **Dorian Janney from NASA**. Ms. Janney explains the habitat mapper app in great detail along with Mission Mosquito Campaign and measurement campaign. Ms. Janney encourage students IVSS reports on Mosquito and encourage them to participate more and & collecting data to help communities from threats of mosquito borne diseases.
 2. **Social Media Tips & Tricks for GLOBE Countries in the Region** presented by Ms Autumn Burdick from SSAI Inc. She share Tips and Tricks to promote The GLOBE Program through Social Media in the region. The presentation was very informative and CCs learn a few new and interesting things.



The GLOBE Program

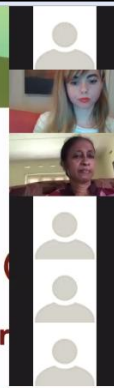
Mission Mosquito



Mosquito Habitat Mapper

Four Steps (You do not have to do them all!)

- Identify potential mosquito breeding habitats (pictures)
- Sample how many eggs, larvae, pupae, and/or adults
- Use cell phone magnifier/microscope to identify larvae genus
- Eliminate water if you can



Ms. Dorian Janney from NASA explain to the participants the GLOBE Mosquito Habitat Mapper (ZIKA Project) & the Mission Mosquito Campaign.

Ms Autumn Burdick from SSAI Inc. shares Tips and Tricks to promote The GLOBE Program through Social Media in the region to the attendees

Get to Know the GLOBE Social Team



Jan Heiderer, GLOBE

Holli Kohl - NASA GO

Kristen Weaver - NASA GO

Amy Barfield - GLOBE and GLOBE Instagram

Tassia Owen - NASA GO

Brian Campbell - NASA GO



Since March 2019: Eve Terrill and since March 2020, Shelby Carreon and Nathan Hong, Interns.

* Additional support provided by Dorian Janney, and Peter Falcon.

Webinar on Students IVSS Project Presentation

- The GLOBE Asia - Pacific Regional Coordination Office hosts a webinar on *June 16th 2020* for 3 winner schools in the region who were the winner of 2020 GLOBE IVSS Projects on "GLOBE 2020 IVSS Projects Presentation".

Here's the school wise presentation topics:-

1. Swmsenwittayalai School, Bangkok, Thailand - *Winner GLOBE IVSS Project*

Students from Swmsenwittayalai School, Bangkok, Thailand explain their project on Mosquito breeding using Drone imagery and GLOBE Observer, Habitat Mapper App.

2. Philippine Science High School, Western Visayas Campus, Philippines - *Winner IVSS DOS Zika Project*

Students From Philippine Science High School, Western Visayas Campus, Philippines, and winner of GLOBE Department of States ZIKA Project IVSS present their project on Mosquito breeding site characterization – density, water Quality, Natural Attractants of Barangays Igang Pototan Philippines.



3. Princess Chulabhorn Science High School, Trang, Thailand - Winner IVSS

DOS Zika Project












Students from Princess Chulabhorn Science High School, Trang, Thailand wins the GLOBE Department of State ZIKA Project grant in the Region for their project on Mosquito Larvae Diversity & Abundance Relation to Land Cover in Coastal Area in Trang Province, Thailand.

Students from Swmsenwittayalai School, Bangkok, Thailand presenting their Research paper during the IVSS Webinar





The GLOBE Program

PHENOLIC COMPOUNDS	BOTH	AMINO AC
 <i>Annona muricata</i> ¹  <i>Bougainvillea glabra</i> ²  <i>Dracaena reflexa</i> ³  <i>Ipomoea aquatica</i> ⁴  <i>Cosmos bipinnatus</i> ⁵  <i>Hibiscus rosa-sinensis</i> ⁶  <i>Zinnia elegans</i> ⁷  <i>Hibiscus rosa-sinensis</i> <i>var rubro-plenus</i> ⁸	 <i>Oryza sativa</i> (Bacilio-Jiménez et al., 2003)	 <i>Leucaena leucocephala</i> (Agbede, 2004)
	 <i>Mikania micrantha</i> Volatile oil compounds as toxins to insects (Zhang et al., 2003)	


Background >> Objectives >> Methods >> **Results** >> Conclusion >> Recommendation 15/21

Students from PSHS, Western Visayas Campus, Philippines presenting their Research paper during the IVSS Webinar

Students from Princess Chulabhorn Science High School, Trang, Thailand presenting their Research paper during the IVSS Webinar

Why the coastal Area in Rajamangala beach in Trang Province is important

Activities on the coastal area in Rajamangala beach



Is this area at risk of mosquito-borne disease?

Most of mosquitoes are found Culex mosquitoes.

We found no mosquitoes but we did not find mosquito larvae.

- ❖ Beach tourism
- ❖ Villagers look for Serrated Mud Crab and Sesarma meder in the mangrove forest for a living.
- ❖ Study about mangrove forest Ecology
- ❖ Bird Watching in Mangrove Forest
- ❖ Villagers look for *Boletus griseipurpureus* Corner
- ❖ Fishing

04



Webinar on status of women empowerment through GLOBE Program

- Asia-Pacific regional Office hosts webinars on *30th June 2020* for Country Coordinators, Trainers & Teachers in the region to share with them the status of women empowerment through GLOBE Program.
- During the webinar GLOBE Partner - Taiwan shares with other countries in the region about status of women empowerment through GLOBE Program in their country.
- GLOBE Taiwan share that have 5 girls GLOBE school in the country. Out of that 5, Hao Hisiung Girl's Senior High School 2019 submitted two 4 star GLOBE Project in 2019 & 1 four star GLOBE Project in 2020 .
- Tzu-Ying Yang Student of Taichung Girls high School submitted a GLOBE STEM story in 2017 in GLOBE community and also participated on 2017 GLOBE Annual Meeting.



The GLOBE Program



- There are 5 girls schools in total.
- ## Taichung Girls' Senior High School



2018 GLOBE International Virtual Science Symposium

The Effect of Indoor and Outdoor Humidity on PM2.5



Tzu-Ying Yang — STEM Stories: GLOBE Taiwan

Jun 15, 2017

Tzu Ying Yang was first introduced to The GLOBE Program as a 10th grade student at the National Taichung Girls' Senior High School in Taichung City, Taiwan. She can still remember the day when her teacher first introduced her to GLOBE, and making another observation.

"I have always been interested in atmospheric science – since I was a little girl. And so I was really excited to start working with The GLOBE Program," said Tzu Ying. She added, "We were the first group of students in our school to participate in GLOBE activities, and because of the Program we grew up a lot and learned so much from it."

With GLOBE, Tzu Ying learned how to perform measurements using science equipment, identify different types of clouds, and discuss GLOBE questions with other classmates during observations.

"It was always looking forward to my observation day because it was not only interesting but also made me learn a lot!"

Additionally, GLOBE allowed Tzu Ying to get closer to nature and taught her to apply what she learned in the classroom and practice it in the field.

Tzu Ying stated, "Even though the field study was challenging, it stimulated us to think critically and taught us to learn to collaborate with others. It felt a sense of achievement during this process."

Tzu Ying and her science class partner performed a GLOBE data experiment that involved learning about the relationship between air temperature, humidity and the dewing line of condensation. After conducting the experiment, Tzu Ying and her classmate presented their research into the GLOBE Virtual Science Symposium and then later presented their work at the GLOBE Annual Meeting in Estes Park, Colorado in August of 2018.

"We not only got to share what we learned and what we lived with participants from all over the world, but we also had the opportunity to hear reports from many experts and other students. Everyone there showed great passion for GLOBE. This made me have even more enthusiasm for learning science and participating in science activities. GLOBE has inspired me a lot. I know now that I want to further study Earth science," said Tzu Ying.

Tzu Ying applied to the Department of Atmospheric Sciences at the National Taiwan University, and was recently accepted.

"I know that I will take the spirit of doing GLOBE with me even after I leave high school, and I'll put great effort into my STEM studies at university and beyond," finished Tzu Ying.



Prof. Dr. Pay Liam Lin presenting the status of women empowerment through GLOBE Program in GLOBE Partner – Taiwan



Webinar on GLOBE Thailand Activities during COVID-19 Pandemic

- Asia-Pacific regional Office host webinar on **24th July 2020** for regional community to share GLOBE - Thailand activities to engage their community in GLOBE activities during the COVID -19 Pandemic.
- Dr. Nisakorn Saengprachum share two main GLOBE activities that they have undertaken during the pandemic to engage their community to promote students, teachers, and general public to participate in data collection and the scientific process at home during covid-19 pandemic .
 1. Student Research Competition
 - GLOBE SRC Research
 - Thailand Junior Water Prize research
 2. GLOBE Campaigns
 - GLOBE live in the time of COVID-19
 - Data entry (cloud observation)



The GLOBE Program

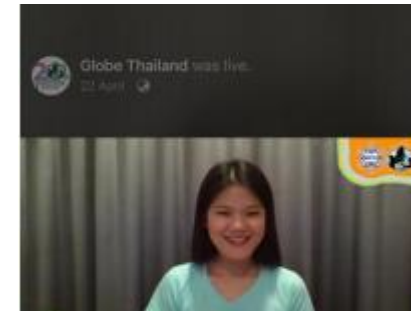
Traditional competition to New normal competition



19 research project (32)



48 research project (59)



Dr. Nisakorn Saengprachum showing the regional community the new normal for Competition



Webinar on GLOBE Students Research and Exchange Program in AP Region

- Asia-Pacific regional coordination office host webinar on **August 12th 2020** for the regional community to share the experiences of Past Expedition, Students Research & Exchange Program, and also to share about the proposed programs for upcoming year.
- Expeditions, Students Research & Exchange programs has helped the student in our region learn, research & to adapt and to the new **ecosystem** which strengthens and expands their **knowledge** and skills on STEM education as well as on the cultural side.
- It also engaging students with exciting material and experiences from meeting different students from our region.
- AP RCO also share information about the GLOBE Regional Campaign - The aim of these regional campaign is to encourage participation of School for data collection of identified water bodies, Soil Sites & Mosquito Breeding Sites.



Recording

You are viewing Desh's screen View Options

The GLOBE Program

Expeditions, Students Research & Exchange Program **objectives:**

- The objective of our regional Expedition, Students Research & Exchange program is to develop a spirit of scientific learning, adventure and discovery. Organizing, planning, training and completing the Expedition or Exploration requires self-reliance, determination and cooperation.
- To Links students, teachers, and the scientific research community in an effort to learn more about the environment through student data collection and observation.
- In the past AP RCO has organized may successful activities to engage students and regional GLOBE Community.
- To name a few.....

Stop Video

Participants 14 Chat Share Screen Record Reactions

Leave

Nisakorn Saengprac...

Desh

Bill Flynn

HENNA KAUSER

Dr. Desh Bandhu presenting the regional community the new objective of the expedition, student research, Campaign & Exchange program

24 participants joined the webinar.



Webinar by 27th August 2020

- Asia-Pacific regional Office host webinar on 27th August 2020 for CCs in the region to share **The Progress made by GLOBE Australia** after rejoining the GLOBE Community.
- GLOBE Country Coordinator Australia Mr. Bill Flynn presented the progress made since rejoining in July 2020.
- During the Presentation Mr. Flynn shares the process to keep in touch with the teachers & how GLOBE Australia disseminate information about GLOBE activities in the Country.
- Mr. Flynn also share the Priorities of GLOBE Australasia for 2020 - 2021 under the GLOBE Program.




The GLOBE Program


0:10:05 3:16 PM

GLOBE Options


A




B



C



Next slide: Observing clouds



Three options:

- A. Register, complete the eTraining** – use the GLOBE program, this allows student collected data to be entered in the GLOBE database. **NOTE** GLOBE Observer collected data will be added to schools data count if the registered email is used when logging in to Observer app.
- B. Register an email address** – use the GLOBE Observer app. **NOTE** Team can be created and students/others invited to join and upload their observations.
- C. Don't register don't complete any training** – still have access to protocols and all activities.

Australia's National Science Agency

Mr. Flynn Showing the Audience of the webinar is plan to engage Teachers to The GLOBE Program In Australia



Webinar on Lake Pokhara Expedition

- Asia-Pacific regional Office hosts a webinar on 11th September 2020 for Country Coordinators and Trainers in the region to share the experiences of the Lake Pokhara Expedition which was presented by Mr. Yogendra Chitrakar – Country Coordinator Nepal, and also to share about the proposed programs for 2021.
- During the Presentation Mr. Chitrakar share the details about the past expedition which the Asia – Pacific Regional Coordination Office is Organizing since 2015.
- During the webinar Participants also discuss about the next possible date for the expedition seeing the current Pandemic Situation & how to create more opportunities for the Students in the region for expedition & Exchange Program



GLOBE Lake Pokhara Expedition

YEAR	Participants	Countries
2015		Srilanka, India, Nepal
2017	38	Thailand, Oman, India, Nepal
2018	44	Taiwan, India, Oman, Thailand, Nepal



Webinar on GLOBE Hydrology Protocol in relation to Wetlands

- Asia-Pacific regional coordination office host webinar on **October 02nd 2020** for the regional community to to share information about Inter & Intra Regional collaboration on Water bodies which was presented by Dr. R.K. Garg, Master Trainer - India, and also to share about the proposed programs for 2021 and related activities.
- Dr. Garg shares with the participants the importance of wetland and role of GLOBE Hydrology Protocol for getting to know your local wetland.
- He also give ideas to the students on preparing their future research report with GLOBE Hydrology data.
- To engage students with GLOBE Hydrology Protocol AP RCO announce for students research Presentation on water Bodies under the regional Campaign.

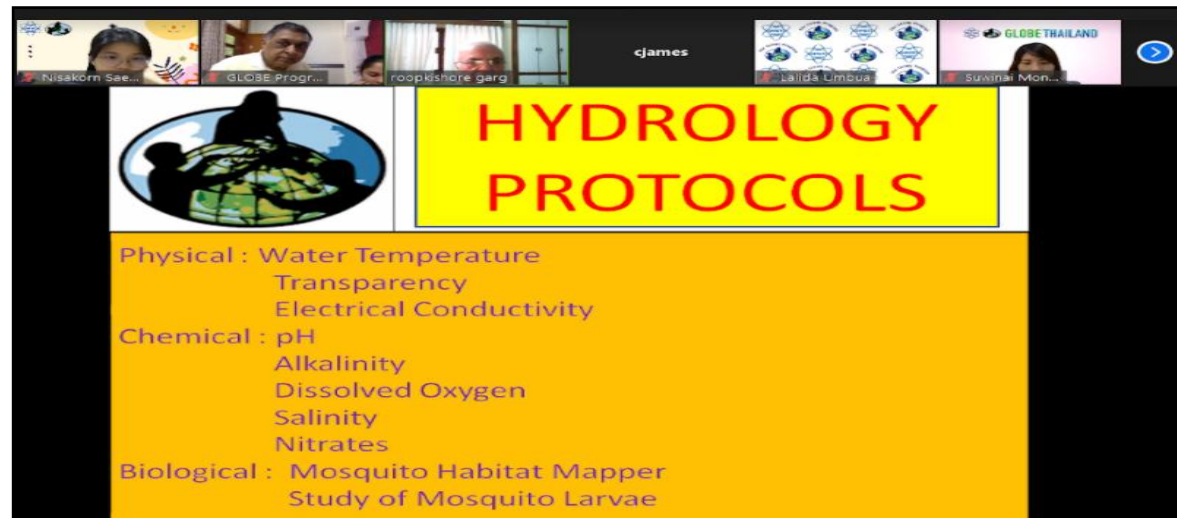


The GLOBE Program



Virtual group photograph of Participants of Webinar on 02nd October 2022

Dr. R.K.Garg, GLOBE Master Trainer sharing with the Participant the importance of wetlands & GLOBE Hydrology Protocol.



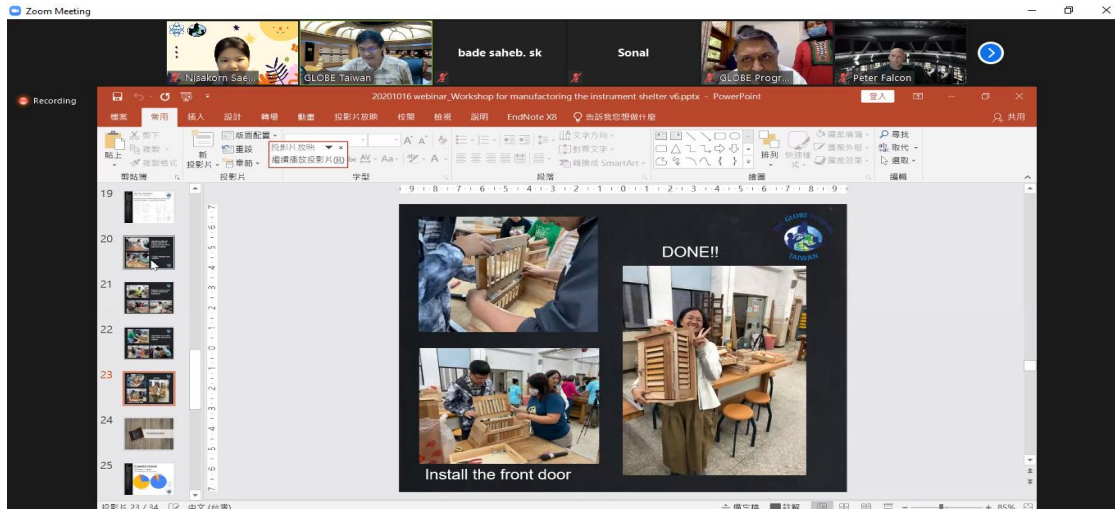


Webinar on Construction of Instrument Shelter Workshop

- Asia-Pacific regional Office host webinar on *16th October 2020* for Country Coordinators, Trainers and GLOBE Teacher's in the region to train them on how to Create GLOBE Instrument Shelter from waste wood laying in the School Premises.
- GLOBE Partner Taiwan share their experience that due to Humid and severe weather in Taiwan make GLOBE instruments broken frequently so, they need to find out the solution & to collect data.
- To help teachers to implement GLOBE more successfully they organize a 2 day workshop on construction of instrument shelter from old chairs, desk, and wood at schools to use it for a recycled Instrument Shelter for Atmosphere protocol and also to encourage & engage in knowledge sharing form other countries in the region.

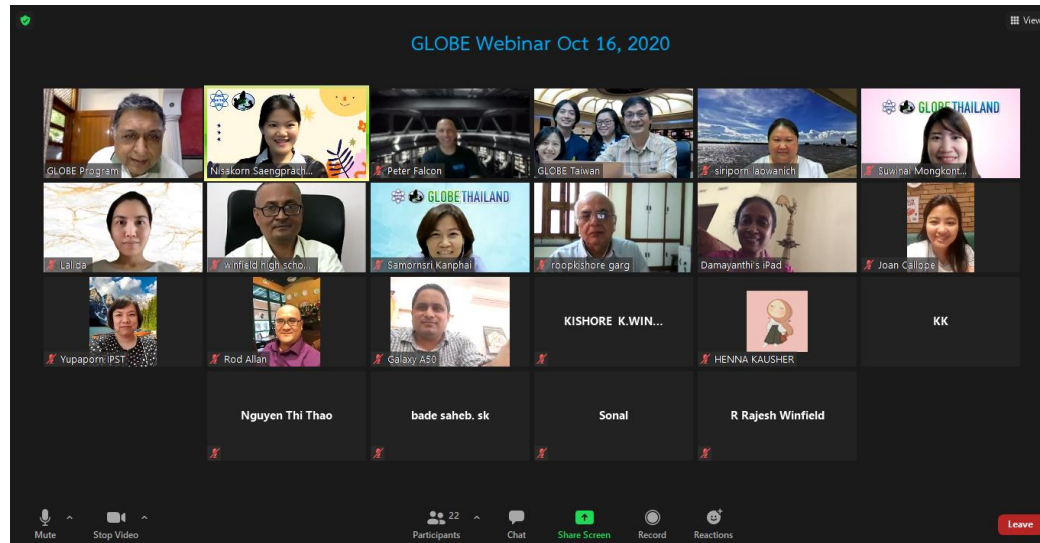


The GLOBE Program



Student showcasing the final constructed Instrument Shelter for GLOBE Atmosphere Protocol

Virtual group photograph of Participants of Webinar on 16th October on Construction of Instrument Shelter Workshop





Webinar on "Trees Around the GLOBE: Students research Campaign "

- The GLOBE Asia - Pacific Regional coordination Office host webinar *on October 30th 2020* on "Trees around the GLOBE: Students research Campaign " that is presented by Brian Campbell (NASA)
- The webinar was for teachers and students from various GLOBE schools in the Region.
- During the webinar Mr. Campbell talk in detail about the Tree height with the trees around the GLOBE Student research Campaign: Observing Tree Height & comparing GLOBE and space based tree data.
- 89 Students & Teachers participated in the webinar from AP Region.



Webinar on GLOBE Mosquito Awareness Campaign

- The GLOBE Asia - Pacific Regional coordination Office hosts a webinar on **November 18th 2020**. Ms. Mindi DePaola, Program Specialist at GIO was the Presenter for the webinar for teachers and students from various GLOBE schools in the Region.
- The webinar for trainer, teachers and students from various GLOBE schools in the Region..
- During the webinar Ms. DePaola talk in detail about the mosquito protocol and GLOBE zika education and prevention project. Ms. DePaola also shares with Students & Teachers resources on GLOBE website for students to use to strengthen their Research Projects.
- 78 Students, Teachers & community member along with Country Coordinators participated in the webinar from AP Region.



about mosquitoes



- Mosquitoes are common insects that live in various environments around the world, particularly in warm, tropical, and sub-tropical regions
- As temperatures increase in many areas of the world, the presence of disease-carrying mosquitoes should be closely monitored to prevent future outbreaks of Zika and other vector-borne diseases
- Over 40 genera and 3,500 known species of mosquitoes
- Three of these genera, *Anopheles*, *Aedes*, and *Culex*, have species that transmit diseases
- These diseases include malaria, dengue fever, West Nile virus, and Zika



Ms. Mindi DePaola sharing with the Participant the importance of Studying Mosquitoes.

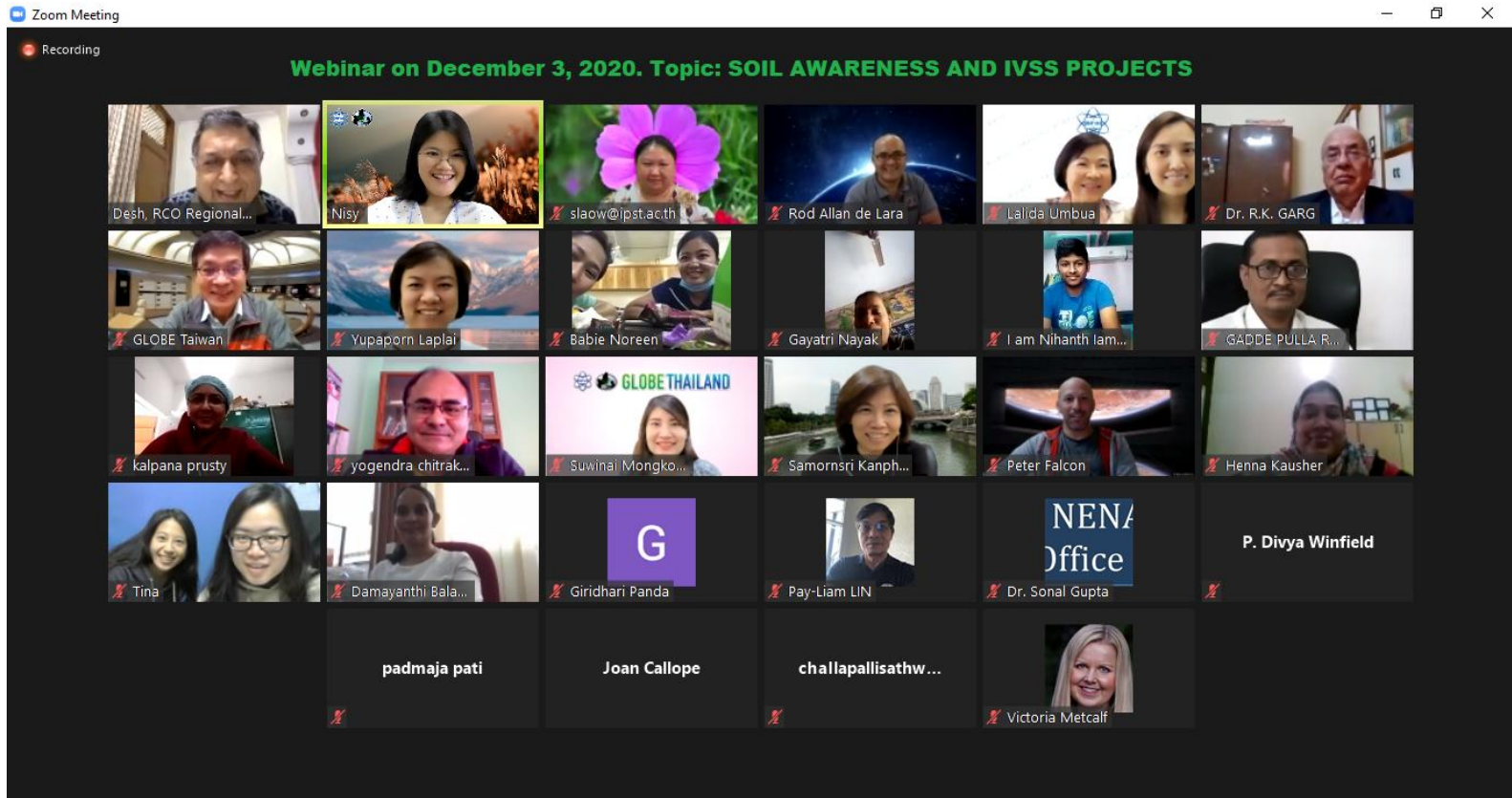


Webinar on Soil Awareness

- GLOBE Asia - Pacific Regional coordination Office host webinar on *December 3rd 2020*, for teachers and students from various GLOBE schools in the Region, on the occasion of World Soil Day.
- Dr. R.k. Garg, GLOBE Master Trainer share his views on why to study soil and some ideas on IVSS projects based on GLOBE Soil Protocol.
- Ms. Nisakorn Saengprachum from GLOBE Thailand shares her view on GLOBE Soil Campaign and what GLOBE Thailand has been doing under this campaign.



The GLOBE Program



Virtual group photograph of Participants of Webinar on 03rd December 2020 on Soil Awareness & IVSS Projects.



Webinar on GLOBE in Philippines and Students IVSS Projects

- The GLOBE Asia - Pacific Regional coordination Office host webinar on *December 17, 2020*, for teachers and students from various GLOBE schools in the Region to give them more insight about the upcoming GLOBE IVSS & AP region Students research Project.
- Dr. Rod Allan De Lara, GLOBE Country Coordinator share ideas, experiences and initiatives of the GLOBE Program -Philippines during the Covid-19 Pandemic.
- He gave insight about the GLOBE EduShare Program which is the moodle® based online learning management system & is open for GLOBE Teachers & students in the Community. The goal of this learning system ins to serve as online learning platform for GLOBE Protocols & Convert GLOBE Protocols into Modules or Modular Form for easy integration to School Curricula.
- Dr. Rod also Shares about the GLOBE Philippines participation in Tree Challenge 2021: Planting, Monitoring and Mapping Tree. He shares that instead of just measuring the tree, GLOBE Philippines is planning to plant 5 million trees by 2025 and will be monitoring the Growth, height & cover and will be mapping the trees by GLOBE observer & database



The GLOBE Program

Objective of Presentation

- To share ideas, experiences and initiatives of the GLOBE Program (Philippines) during the Covid-19 Pandemic

*“Like the Coronavirus, Ideas are Contagious...
The Good Ones Spread...”*




Rod Allan de Lara

Dr. Rod Allan Sharing to
the participants the
Objective of the webinar
on 17th December 2020


2025 GOAL

ONE MILLION TREES

GLOBE Program Philippines in partnership with Pili LGU



Supported by:
Municipal Environment and Natural Resources Office
Local Youth Development Officers
Federation of Pili Youth Officers
BFP, PNP-SWAT, Phil-Army
Barangay Tinangis
Pauyam Group



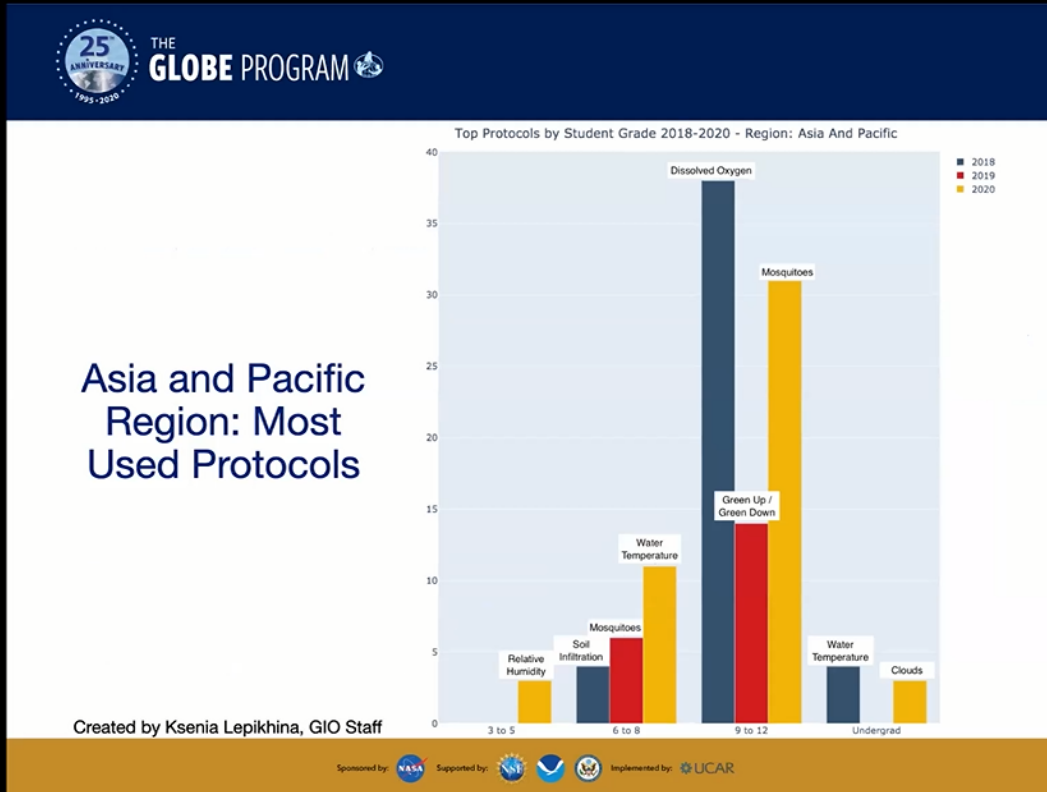


Webinar on IVSS Trends Specific to the Asia Pacific Region

- The GLOBE Asia - Pacific Regional coordination Office host webinar on *14th January 2021*, for teachers and students from various GLOBE schools in the Region to give them more insight about the GLOBE IVSS trends in AP region to help the Regional Students Community in making their Students research Project.
- The Webinar was presented by **Ms. Amy Barfield** from GIO.
- Ms. Barfield explain to the Participants about the IVSS statistic & Trends, GIO Triage Process & Resources for Students to create impactful research Project.



The GLOBE Program



Ms. Barfiled Showing the Participants the most used Protocol in the Region by Students for IVSS Projects.

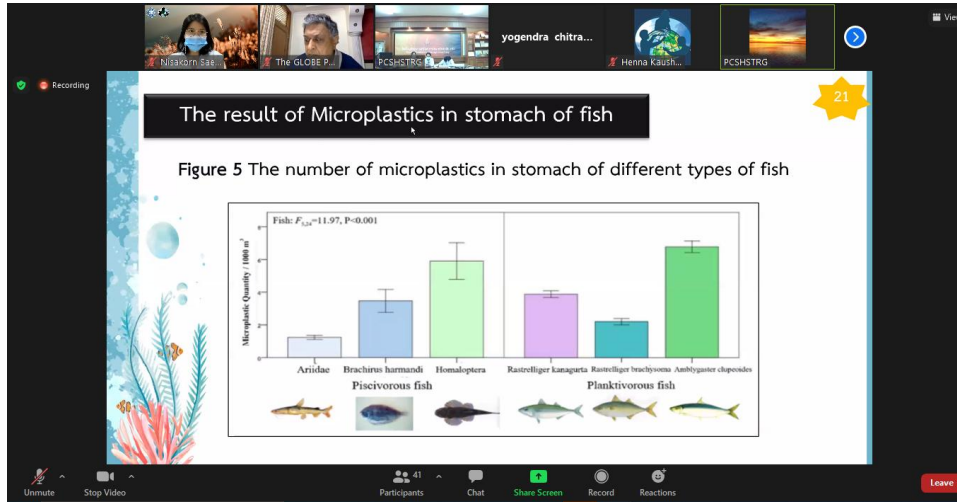


Webinar on Water Collaboration Project Symposium

- The GLOBE Asia - Pacific Regional Coordination Office hosts a webinar on the occasion of World Wetland day on *February 02, 2021* for Students to showcase their research work of GLOBE hydrology Protocol & Water Bodies.
- The webinar was also for GLOBE trainers to teach students about GLOBE Hydrology Protocol in different type of water bodies & help them with their IVSS research report.
- Students from India, Philippines, Taiwan & Thailand presented their research paper. GLOBE Master Trainer for Hydrology Protocol
- Dr. R.K.Garg also shares his presentation Regional Collaboration Project on water bodies.
- 96 Participants including Students, Teachers, Trainers & Country Coordinator Participated in this webinar.



Virtual group photograph of Participants of Webinar on 02nd February 2021 on Water Collaboration Project webinar/ Symposium



Students from Princess Chulabhorn Science High School, Trang, Thailand presenting their Research paper during Water Collaboration Project webinar/ Symposium

Students from Batasan Hills National High School, Philippines presenting their Research paper during Water Collaboration Project webinar/ Symposium

Batasan Hills National High School

The GLOBE Program

Utilizing Whorled Pennywort (*Hydrocotyle Verticillata Thunb*) to Enhance the Water Quality on Batasan Hills-San Mateo River

Researchers: Marian Kate M. Bacani
Karylle T. Javier
Research Coach: Rhodora A. Jamerio



- In 2018 GIO launch the GLOBE Zika Education & Prevention Project by Organizing the 1st Regional Mosquito Training in Asia – Pacific Region.
- In the last Two and a half years the 10 initial implementation countries in Asia & Pacific Region that are supported to do CMTs and LMWs have tremendous progress, by working as a community to collect data to help track mosquitoes and fight Zika and other mosquito-borne diseases.
- Asia- Pacific Region has completed **35 CMTs** in which the participating countries have trained **1678 T2 Trainers**.
- The region has also completed **77 LMWs** and have trained **6749 LMW Participants**.
- In the GLOBE Asia Pacific Region the Zika Education & Prevention Project implementing countries have entered more that **80,000*** (*78300 as of January 2021) Data points into the GLOBE Database



The GLOBE Program



Great Success!



THANKS!

Contact Information:
iesindia@gmail.com