



GLOBE Asia – Pacific Regional Coordination Office

We **L**earn we **D**o with **GLOBE**
(May'21 –January'21)

AP RCO Coordinator - Dr. Desh Bandhu

www.globe.gov

Summary of Activities in the Region

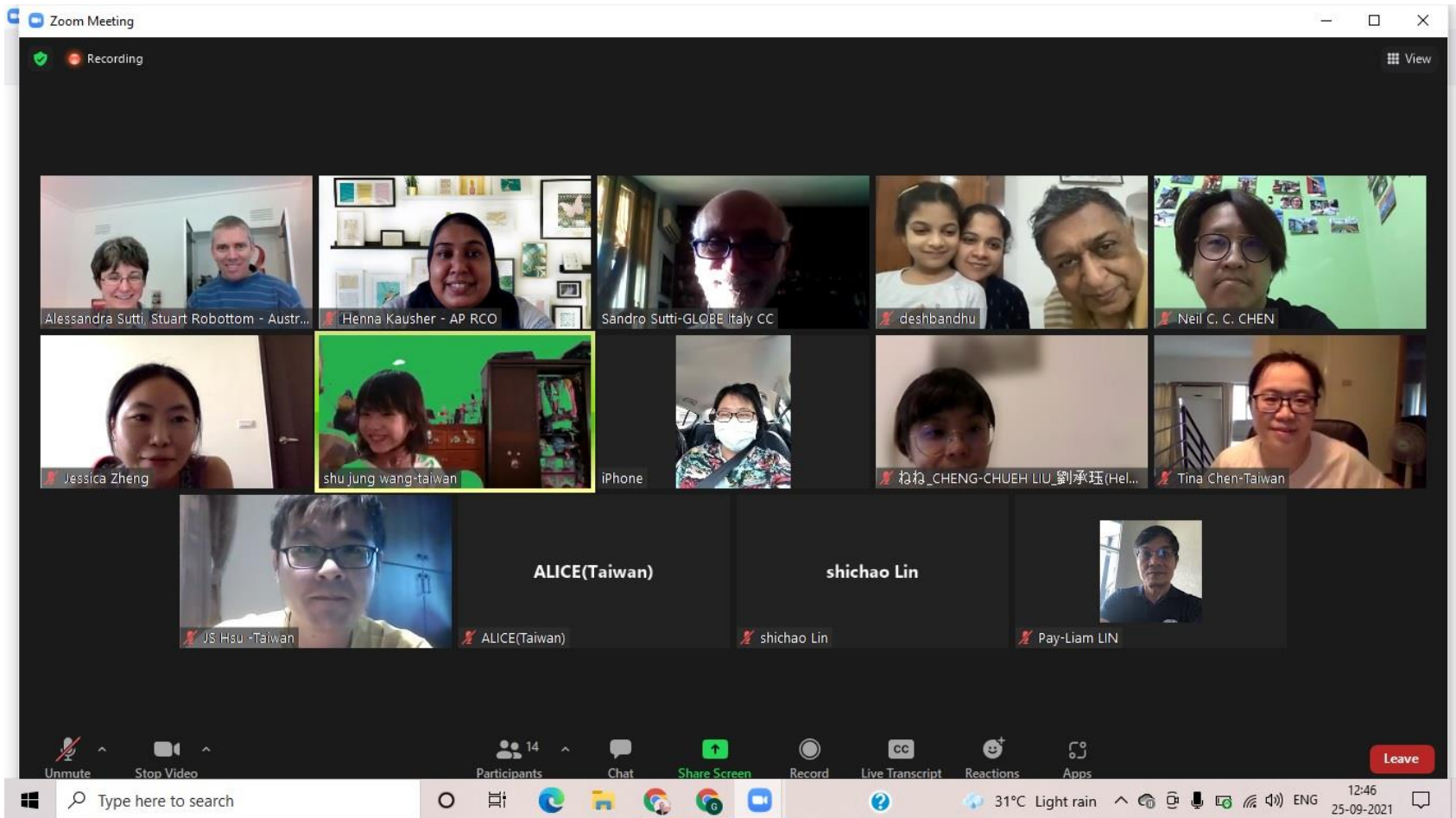
- Since the pandemic is still not over as a precautionary measure for the GLOBE Program community we have decided to conduct all GLOBE activity in the region virtually. We have been utilizing the digital resources to connect with the GLOBE Community for betterment of planet Earth in various ways.
- Since May 2021 to January 2022 AP RCO has organized 10 Webinars for GLOBE community in the Region.
- AP RCO also organized a 5 Days GLOBE e- Training workshop for Bhutan, which is a newly added country in our region.
- Some of the Regional highlight is mention in this presentation.

Webinar to increase regional engagement in GLOBE Program



Webinar on “Awareness on Microplastic in Ocean Water”.

- The GLOBE Asia-Pacific regional Coordination Office hosts a webinar on **26th May 2021** for Country Coordinators, GLOBE trainers, and GLOBE teachers in the region on "[Awareness on Microplastic in Ocean Water](#)".
- Ms. Alessandra Sutti & Mr. Stuart Robottom from Institute for Frontier Materials, GTP Research, Deakin University, Victoria, Australia was the Speaker of the webinar along with participants from Europe & Eurasia RCO & CCs & DCCs from GLOBE Italy.
- The Asia – Pacific region in promoting the activity on micro plastic as this has become a serious issue and suggested by country coordinators in the region.
- Yesterday we have seen some wonderful work done by Students in the region on Microplastic.
- 47 Participants got trained in Microplastics Monitoring Protocol Testing Trail in AP Region through webinar held on 21-22 Aug’21 & 24-25 Sep’21.



Participants having Q&A with trainers after the training on 25th Sep'21

Webinar on Asia – Pacific Air Quality Campaigns

- The GLOBE Asia-Pacific regional Coordination Office hosts a webinar on **07th June 2021** for Country Coordinators, GLOBE trainers, and GLOBE teachers in the region on **[“Introductory webinar on Asia – Pacific Air Quality Campaigns”](#)**.
- Air pollution is the most pressing environmental health crisis in the world. It is responsible for more than 6.5 million deaths annually, the bulk of which – 70 per cent – occurs in Asia Pacific.
- The idea for GLOBE Air Quality Campaign came up during the Asia – Pacific Virtual Regional Meeting – 2021.
- Country Coordinators suggest that apart from Hydrology, Mosquito & Soil Campaign, we should also focus on Air quality campaign.
- Seeing a need in the community for this campaign the GLOBE Asia –Pacific Regional Coordination Office initiated the Air Quality Campaign in the region.
- The webinar was very well attended by participants from many countries.

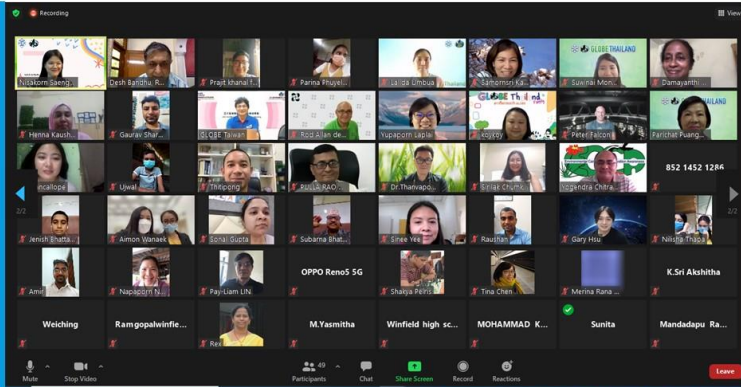


YouTube link of the Webinar on 07th June'2021

Webinar on Air Quality Awareness and Students Presentation

- The GLOBE Asia-Pacific regional Coordination Office hosts a webinar on **24th June 2021** for Country Coordinators, GLOBE trainers, and GLOBE teachers in the region on **[“Air Quality Awareness and Students Presentation”](#)**.
- **Dr. Watcharee Ruairuen**, GLOBE Alumni from Thailand presented her research study on Air Quality in Bangkok Thailand”.
- Dr. Ruairuen explain to participants what are particulate matter, what is the difference between PM2.5 & PM10 and why we care about air quality.
- Dr. Ruairuen also talk about data collection through weather station & study of sky condition & Air Temperature to understand the air pollution in our local community.
- Students ask various Question related to their research project on Cloud & Air Temperature Protocol & how they can use their data in developing a concrete research.
- The webinar was attended by 54 participants from seven countries.

WEBINAR ON AIR QUALITY AWARENESS AND STUDENT'S PARTICIPATION (JUN 24, 2021)

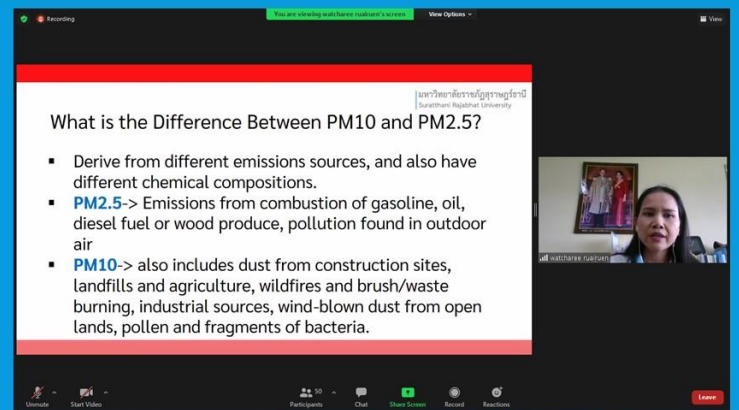


Presented by Dr. WATCHAREE RUAIRUEN from Thailand

Virtual group photograph of Participants of Webinar on 24th June 2021

WEBINAR ON AIR QUALITY AWARENESS AND STUDENT'S PARTICIPATION (JUN 24, 2021)

Dr. Watcharee Ruairuen explaining the difference between PM2.5 & PM10 to the students during her Presentation.



Presented by Dr. WATCHAREE RUAIRUEN from Thailand

Webinar on Regional Activity Plan for 2021-22

- The GLOBE Asia-Pacific regional Coordination Office hosts a webinar on **11th August 2021** for Country Coordinators, GLOBE trainers, and GLOBE teachers in the region on **Regional Activity Plan for 2021-22**.
- AP RCO shares the proposed regional plan and activities to be promoted during 2021-2022 and ask for feedback from the community on the same.
- GLOBE AP RCO Proposes & Regional Campaign on different GLOBE Protocol in including Bundle Protocol such as hydrosphere, Atmosphere & Biosphere.
- RCO also share its interest to organizing e- training protocol workshop for some GLOBE Protocol to strengthen the trainer pool in the region.
- And lastly to have various Virtual Students Research symposium & a Virtual Science festival by end of 2022.



Trainings & Campaigns

Proposed dates for upcoming training & campaigns



Coordinator, GLOBE AP RCO Sharing the activities details with CCs in the Region & other participants

GLOBE Asia – Pacific Mosquito Awareness Campaign

Summary

- 12 school teams from 08 countries participated in the Mosquito Awareness Campaign from **20th July to 20th August**.
India, Maldives, Nepal, Philippines, Sri Lanka, Thailand, Taiwan Partner, Vietnam.
- 02 Students group worked together on school projects to prepare research report, exchanged data and experience
- AP Region contributed with large No. of data entries to the GLOBE database via the GLOBE Observer App.
- Webinars with scientists & online Meet ups organized to keep the community motivated.
- AP RCO Prepare relevant resource material for the campaign and shares it with the regional Community
- To mark the end of the campaign AP RCO has hosted a webinar on [20th August, 2021](#) to give platform to students in the region to share their research report and data conducted during the Mosquito Awareness Campaign month.

Future

- RCO plans to continue with the Mosquito Awareness Campaign 7-8 /2022

Lessons Learned

- Number of participants and uploaded data was significant despite the COVID situation when many schools were closed.

THE GLOBE PROGRAM
Glimpse of Data Submitted to GLOBE Observer

GLOBE - India



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Coordinator, GLOBE AP RCO
 Sharing the Glimpses of the Data
 submitted during the Campaign

Coordinator, GLOBE AP RCO
 Sharing the details of resource
 material developed for the
 Campaign by RCO

THE GLOBE PROGRAM
Campaign Material

Asia – Pacific Regional Coordination Office



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Relationship of Colors, Climate and Water Quality that affect mosquito larvae

Students : Mr. Korawit Jingjit ,
Mr. Intuch Mueangpool

Teacher : Mrs. Patchara Pongmanawut

Scientist : Dr. Anantanit Chumsri

School : Princess Chulabhorn Science High School Trang

GLOBE Students from Thailand sharing their research paper during the 20th Aug' 21 Webinar

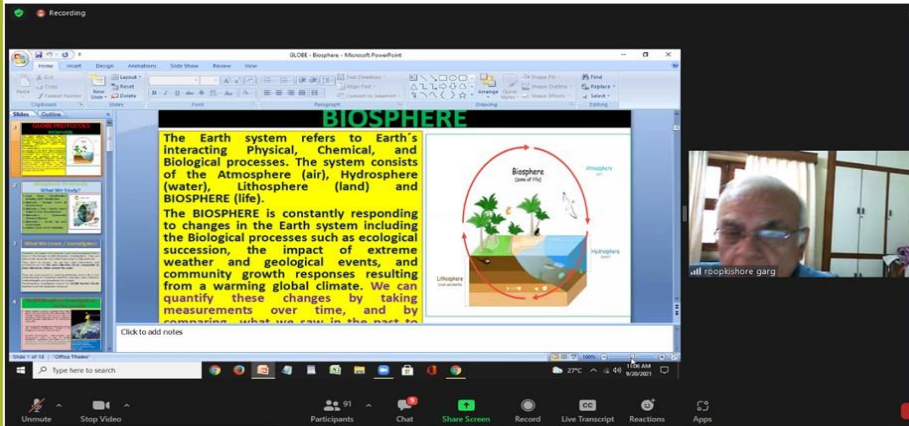
GLOBE Students from Nepal sharing his research paper during the 20th Aug' 21 Webinar

Picture of Analyzing Larva

Webinar on Tree Challenge Awareness Webinar

- The GLOBE Asia-Pacific regional Coordination Office hosts a webinar on 20th September 2021 for the GLOBE Community on “[Tree Challenge Awareness Webinar](#)”.
- The webinar has a dual purpose first to share the students research on biosphere & tree Challenge with the community and secondly to train the participates on GLOBE Biosphere Protocol.
- Dr. R. K. Garg. Master Trainer form India gave a details training on the biosphere Protocol including measuring tree height & circumference to help the participants with the tree awareness Challenge.
- GLOBE Students teams from Thailand (2) & India (1) share their research paper during the webinar.
- The webinar was attended by 93 participants from many GLOBE countries in the Region.
- A participator Certificate was given to all the participants.

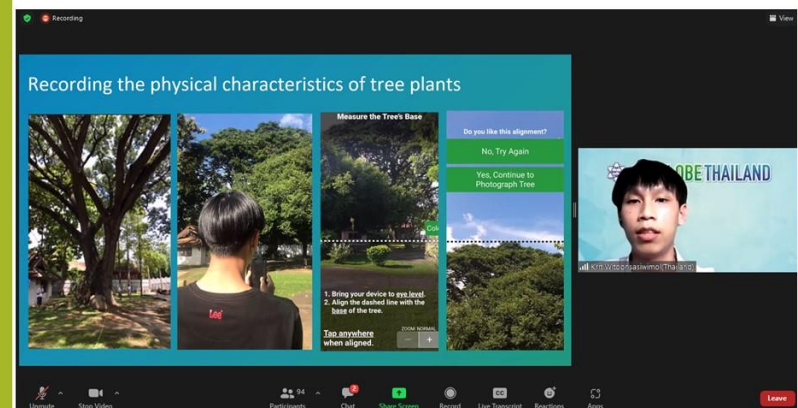
Three challenge awareness webinar (20 September 2021) India



Dr. R.K. Garg explaining the GLOBE Biosphere Protocol during the Webinar

GLOBE Student from Thailand sharing his research Presentation during the 20th Sept' 21 Webinar

Three challenge awareness webinar (20 September 2021) Thailand



Three challenge awareness webinar (20 September 2021) Thailand



GLOBE Students from Thailand sharing their research Presentation during the 20th Sept' 21 Webinar

GLOBE Students from India sharing their research Presentation during the 20th Sept' 21 Webinar

Three challenge awareness webinar (20 September 2021) India



GLOBE Scientist Story

- The GLOBE Asia-Pacific regional Coordination Office hosts a special webinar on **08th October 2021** for GLOBE Community in the region by Yash raj Patil - GSIN Member on [GLOBE Scientist Story](#).
- Where Mr. Patil shares his experiences during his expedition to the Himalayan region in the UT of Ladakh.
- Mr. Patil credits The GLOBE Program – and his experiences learning and growing within the program – with helping him achieve a personal and professional dream.
- The most fascinating experience for me was implementing the GLOBE protocols at high-altitude regions, and recording every possible observation of the Himalayas, as well as tracking NASA's Terra and Aqua Satellites Offline (which was a major challenge due to a lack of internet connectivity for online tracking) and receiving notification regarding satellite flyover from the GLOBE Observer App. – Yash raj Patil, GSIN Member, The GLOBE Program.
- Mr. Patil also has a [STEM Story](#) on the GLOBE website.

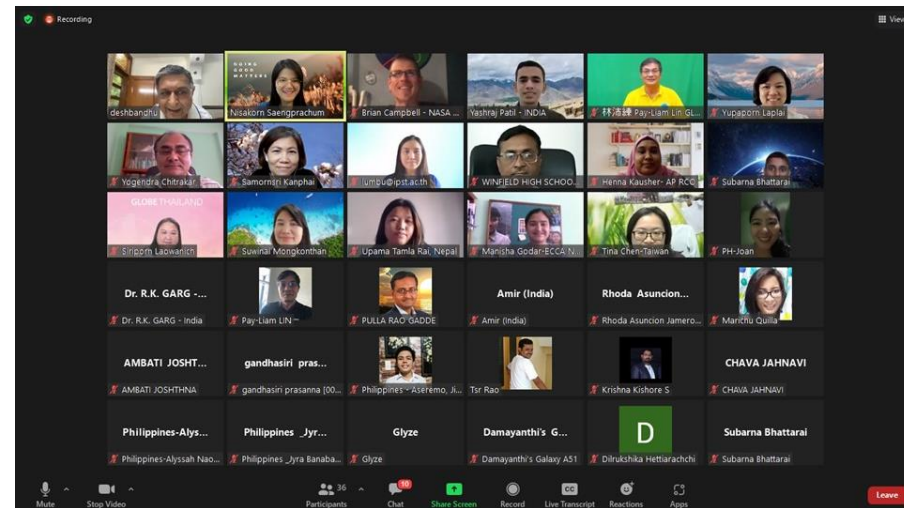
GLOBE Science Story (08 October 2021)



Mr. Patil sharing his research & observation during the 08th Oct' 21 Webinar

GLOBE Science Story (08 October 2021)

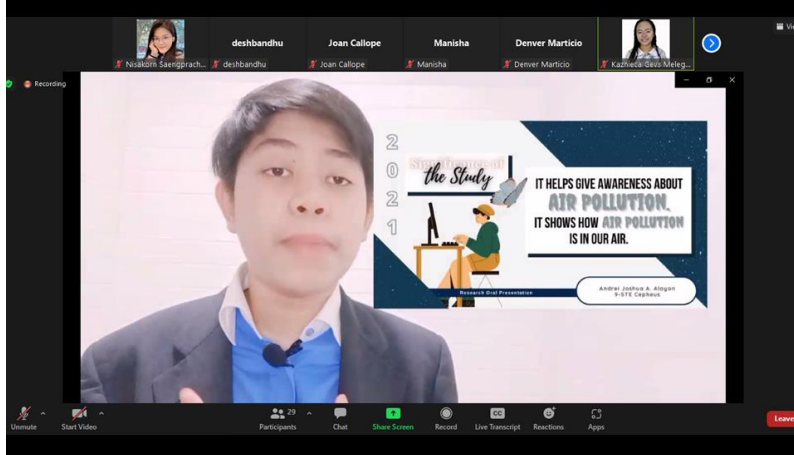
Virtual group photograph of Participants of Webinar on 08th October 2021



GLOBE Asia – Pacific Air Quality Campaign

- November 2021 marks the official beginning of [GLOBE Asia – Pacific Air Quality Campaign](#).
- GLOBE Asia and Pacific Region hosts Inspiring Webinar on 05th Nov'21 to Support the Asia – Pacific Air Quality Campaign.
- The Webinar attended by 35 people from seven countries.
- The Asia - Pacific Air Quality Campaign is a citizen science project that will measure the protocol related to GLOBE air quality bundle.
- This is an educational project designed to raise awareness about air pollution and showcase the potential of citizen science to gather unique datasets and insights into our environment.
- The campaign also provides a collaborative platform for schools to share their research and insights.
- The Campaign, which will run from November 2021 through January 2022.

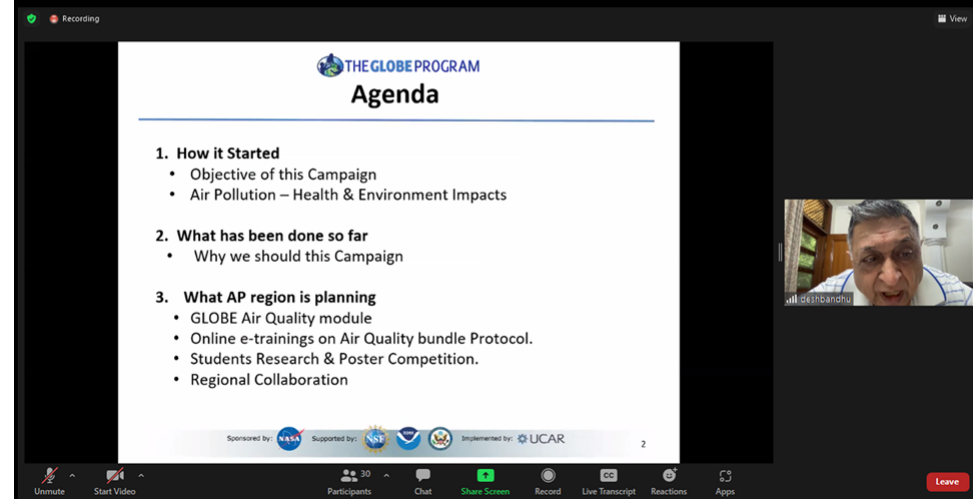
Air Quality Monitoring Webinar (05/11/2021)



GLOBE Student from Philippine asking students from the region to collaborate with him on his research during the webinar on 05th Nov'21






Coordinator, GLOBE AP RCO explaining to the participant the Agenda of the Campaign during the webinar on 05th Nov'21

Air Quality Monitoring Webinar (05/11/2021)



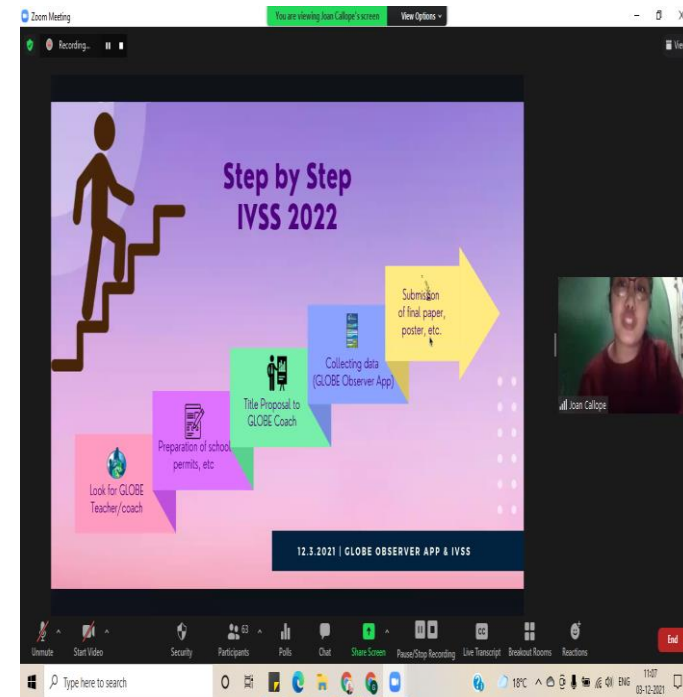
THE GLOBE PROGRAM
Agenda

- 1. How it Started**
 - Objective of this Campaign
 - Air Pollution – Health & Environment Impacts
- 2. What has been done so far**
 - Why we should this Campaign
- 3. What AP region is planning**
 - GLOBE Air Quality module
 - Online e-trainings on Air Quality bundle Protocol.
 - Students Research & Poster Competition.
 - Regional Collaboration

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Webinar on GLOBE Observer App

- A group of newly minted GLOBE students & Teachers request a webinar to understand the use of GLOBE Observer App.
- GLOBE Asia-Pacific regional Office host the webinar on 3rd Dec 2020 teachers and Students in the region to Training on using [GLOBE Observer App](#).
- The training was conducted by Joan Callope, GLOBE Assistant Country Coordinator- Philippines.
- Seeing the IVSS submission date is also nearing AP RCO requested Ms. Callope to address the students on IVSS and help them this year submission.
- The webinar was attended by 95 participants including students from many countries incl. 28 students in three school groups from Nepal joined the webinar.



Zoom Meeting You are viewing Joan Callope's screen View Options

Recording...



GLOBE PROTOCOLS FOR DATA COLLECTION

Water	Biosphere	Soil	Air
<ul style="list-style-type: none"> Alkalinity Conductivity Dissolved Oxygen Macroinvertebrates <input type="checkbox"/> Mosquitoes Nitrate pH Salinity Temperature Turbidity 	<ul style="list-style-type: none"> Biometry <input type="checkbox"/> Tree Height Carbon Cycle Green Up Green Down <input type="checkbox"/> Land Cover Lilac Phenology Pheno. Gardens 	<ul style="list-style-type: none"> Bulk Density Particle Size Dist. pH Soil Characterization Soil Fertility Soil Moisture Temperature 	<ul style="list-style-type: none"> Aerosols <input type="checkbox"/> Clouds Pressure Precipitation Relative Humidity Surf. Temperature Temperature Water Vapor

12.3.2021 | GLOBE OBSERVER APP & IVSS



Joan Callope

Unmute Start Video Security Participants (66) Polls Chat Share Screen Pause/Stop Recording Live Transcript Breakout Rooms Reactions End

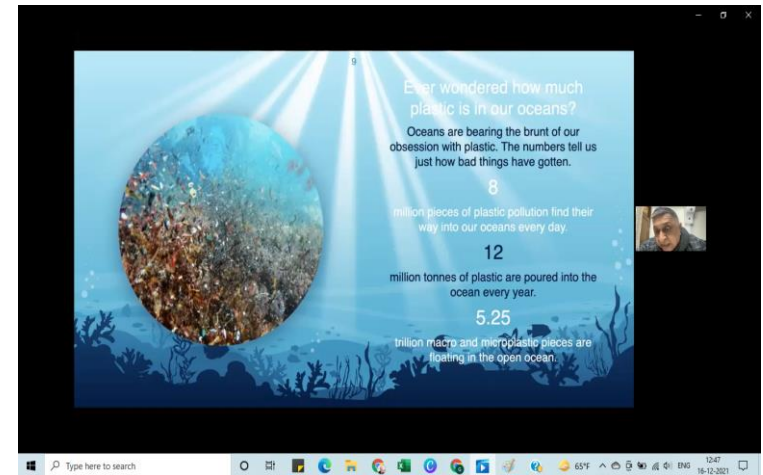
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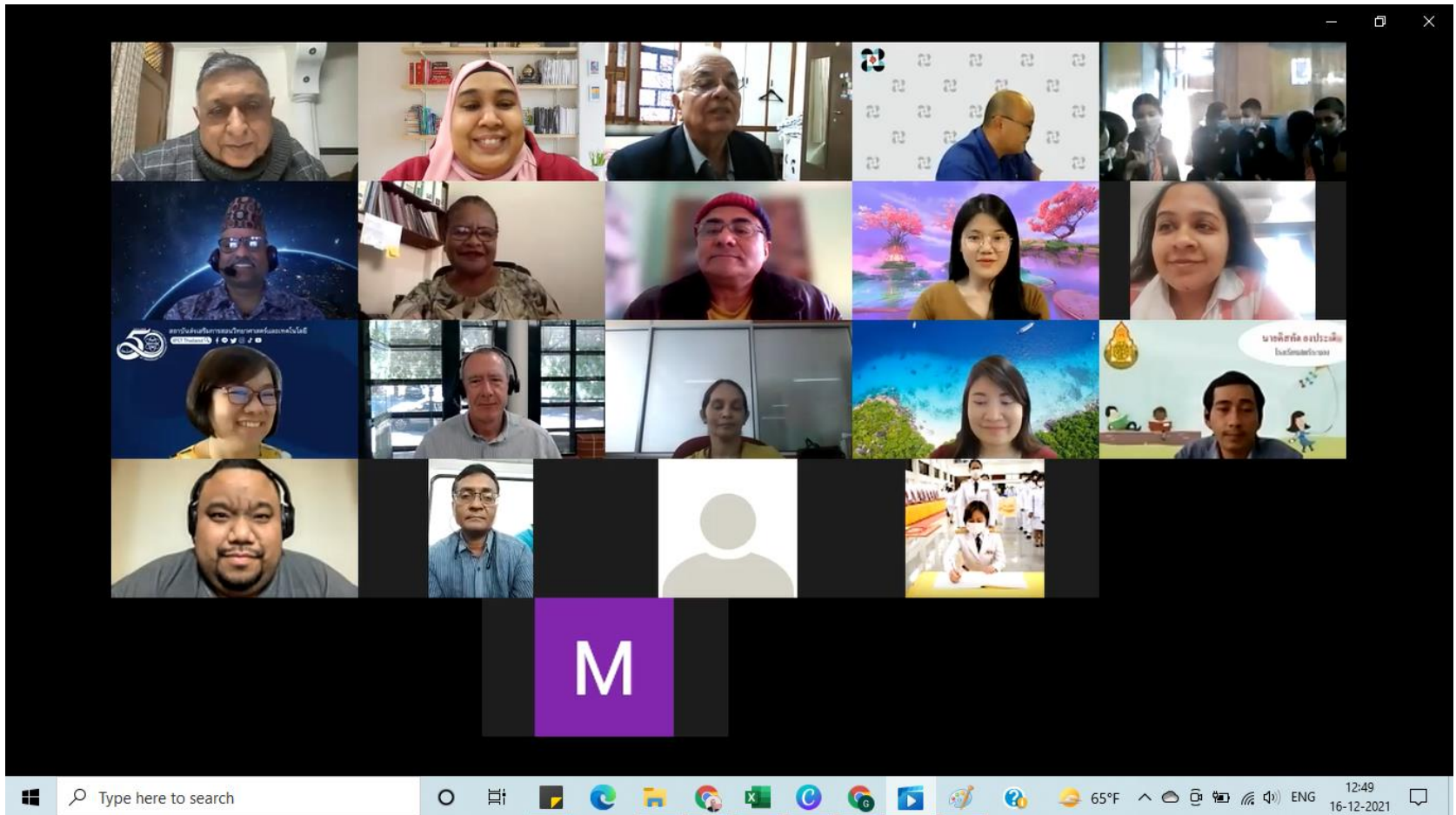
Ms. Callope explaining to the participants about the GLOBE Observer App during the webinar on 05th Nov'21

Webinar on Awareness of Microplastic in Water Bodies

- AP RCO organized webinar on the [Awareness of Microplastic in Water Bodies](#)* on 16th Dec'21.
- The webinar was attended by 34 participants from 10 countries including students, Teachers, Scientist from the region.
- Dr. Desh Bandhu, Coordinator, AP RCO was the presenter of the webinar, He shares with the participants with the environmental risk of Microplastic in waterbodies & that Asia – pacific is largest contribute of Microplastic in the world during the webinar.
- He also shares ideas in how we can reduce microplastic & its testing in our water bodies to get a sense of what actually happening in our local environment.

* Micro plastic in water bodies is not a GLOBE Protocol. The Asia – Pacific region in promoting the activity on micro plastic as this has become a serious issue and suggested by country coordinators in the region.

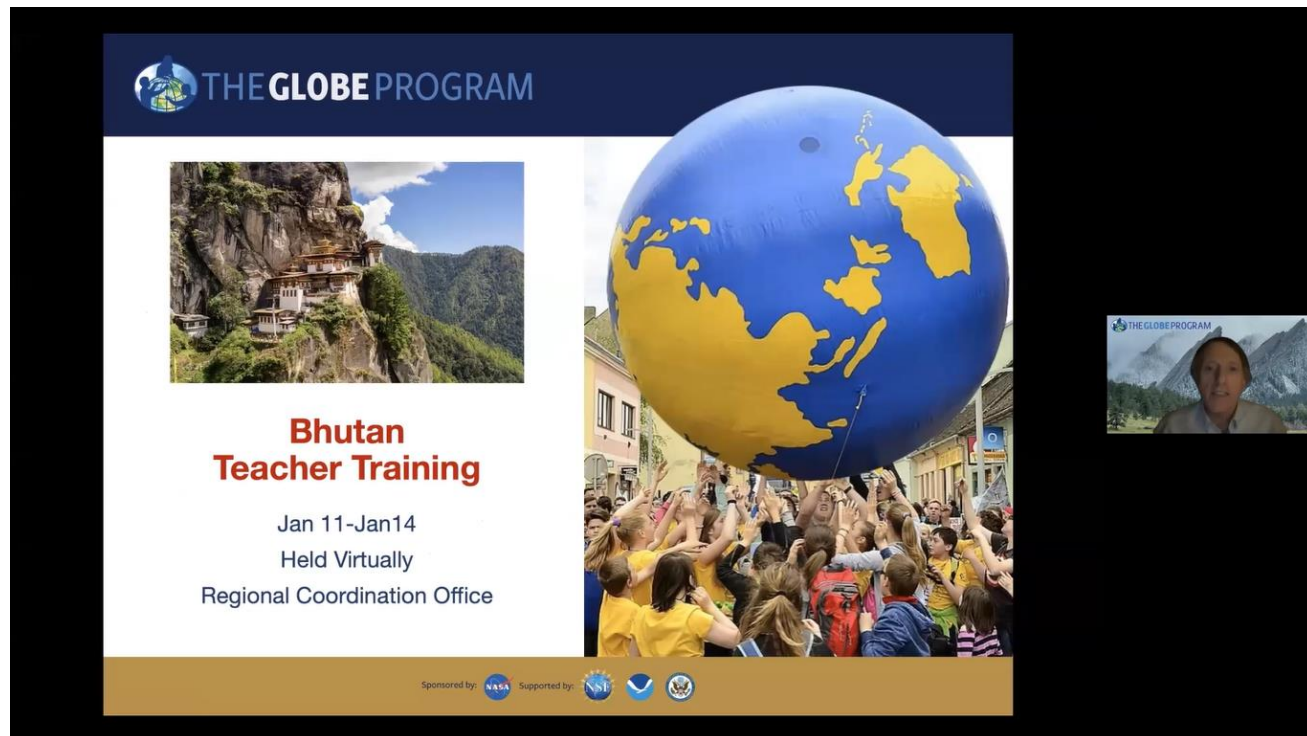




Virtual group photograph of Participants of Webinar on 16th December 2021

Bhutan GLOBE Teacher Training Workshop

- AP RCO help organize [GLOBE Teacher Training Workshop](#) for GLOBE – Bhutan from 10 to 14 Januray'2022.
- 12 teachers & 5 staff from GLOBE Bhutan Office from Bhutan got train in 4 GLOBE Protocols including Atmosphere, Biosphere, Pedosphere & Hydrosphere.
- This was the first e-training in the region on dedicated to learn all about GLOBE program.



The poster for the Bhutan Teacher Training workshop features the GLOBE Program logo at the top left. It includes a photograph of a traditional Bhutanese monastery built on a cliffside. The main title is 'Bhutan Teacher Training' in red, with the dates 'Jan 11-Jan14' and 'Held Virtually' below it, and 'Regional Coordination Office' at the bottom. A large, blue and yellow globe is the central focus, with a crowd of people reaching up to touch it. A small video feed in the bottom right corner shows a woman speaking. At the bottom, it lists sponsors: NASA, NSE, NOAA, and the Department of State.

GLOBE STAR Stories from Asia – Pacific Region

GLOBE Asia – Pacific Regional Coordination Office submits 3 GLOBE Star during 2021.

1. [“One Student-One Tree” Initiative Encourages Community Awareness](#)
On 01 September 2021, the “One Student-One Tree” initiative took center stage at the Winfield High School in Khammam, Telangana, India.
2. [GLOBE Asia and Pacific Region Hosts Inspiring Webinar in Support of November 2021 – January 2022 Air Quality Campaign.](#)
The GLOBE Air Quality Campaign is a citizen science project that will measure the protocol related to GLOBE air quality bundle. The campaign also provides a collaborative platform for schools to share their research and insights.”
3. [GLOBE Vietnam Zika Education and Prevention Project Trainings “Push the Edge of Citizen Science Impact”](#)
Over the course of two years, GLOBE Vietnam conducted various Country Mosquito Trainings (CMTs) and Local Mosquito Workshop (LMWs) in connection with the GLOBE Zika Education and Prevention Project. Over 260 teachers have been trained, and the country has contributed thousands of unique data points.

AP RCO will submit 2 more GLOBE Star by the end of January, 2022

GLOBE Activity In Japan

1. GLOBE teachers' virtual Meeting

GLOBE Japan Center organized the virtual meeting on 28th July. GLOBE teachers and some students gathered to the meeting and gave presentations about their GLOBE activities. GLOBE staffs explained the relationships between SDGs and GLOBE program and encouraged their activities toward the achievement of SDGs. The member of U.S. Embassy in Tokyo, Mr. Cordy Walsh, also gave some comments and encouraged GLOBE teachers and students to continue their observation activities.

2. School Visit

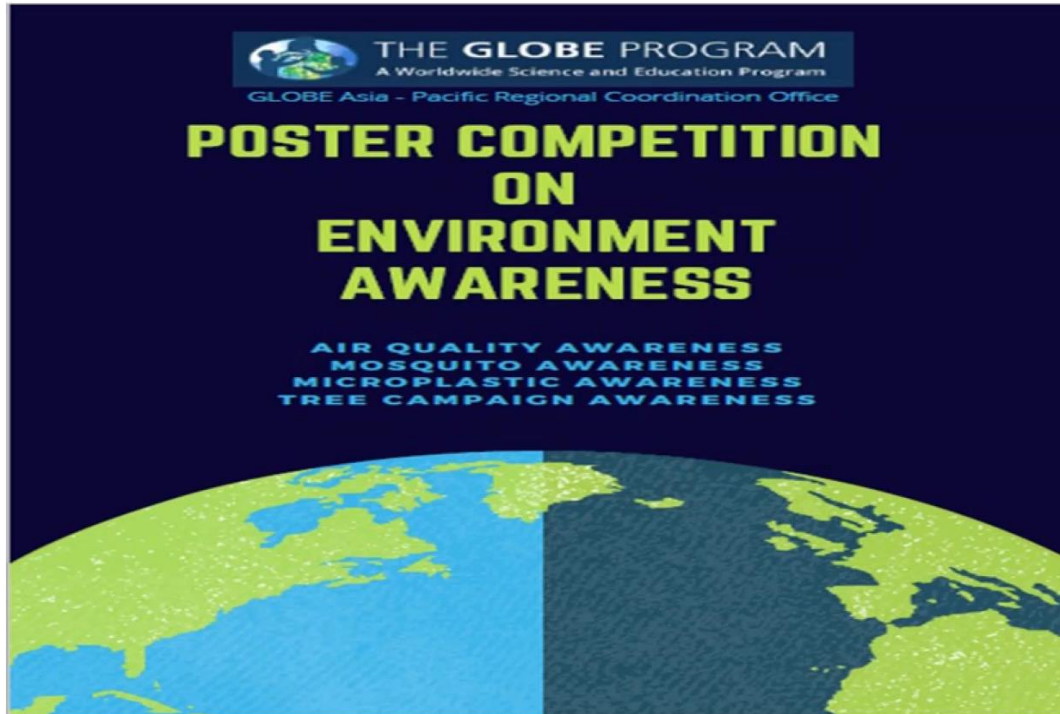
The staff teachers of GLOBE Japan Center visited the new GLOBE school, Tokyo Gakugei University Koganei Secondary School on 19th November. We visited the observation sites and gave the GLOBE teachers and students some advices.

3. GLOBE workshop in Autumn (30th October)

GLOBE staff teachers gave lectures on the GLOBE protocols (Atmosphere, Hydrosphere, Pedosphere and Biosphere) to school teachers, university students and local people. The participants were interested in GLOBE activities and 11 participants got GLOBE teacher accounts after the workshops.

4. GLOBE workshop in Winter (26th December)

GLOBE staff teachers hold another workshops and gave lectures on the GLOBE protocols (Atmosphere, Hydrosphere, Pedosphere and Biosphere) at Tokyo Gakugei University on 26th December. Teachers from 9 GLOBE schools and the other 12 teachers and university students also took part in this workshop.



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2

1st Prize Winner of Poster Competition



Kittichai Chaimongkol

Dara Academy
Thailand

Topic : Mosquito Awareness

2nd Prize Winner of Poster Competition



Abhe Rai and Anup Tamang

Crescent Academy English school
Nepal

Topic : Mosquito Awareness

3rd Prize Winner of Poster Competition



Refil, Maria Carla, A.

Batasan Hills National High School
Philippines

Topic : Tree Campaign Awareness

GLOBE CAPACITY BUILDING TRAINING IN ASIA - PACIFIC REGION

GLOBE CAPACITY BUILDING TRAINING IN ASIA - PACIFIC REGION

- The idea is to develop capacity of teachers and Trainers, facilitate activities and action project to address local environmental issues through applied environmental education and to assist them understand the environmental concepts infused into the school curriculum.

Objective:

- This proposal has the principal objective of enhancing the capacity of the GLOBE Teachers for GLOBE Protocols. In particular, the exercise will focus on the following:
 1. **Training of 25 GLOBE Teachers & 20 GLOBE Trainers** on all four GLOBE Protocols over the project duration in two (2) group in **Philippines**.
 2. **Training of 25 GLOBE Teachers & 20 GLOBE Trainers** on all four GLOBE Protocols over the project duration in two (2) group in **Vietnam**.
 3. Training of **20 GLOBE Teachers from Taiwan** and **10 GLOBE Trainers 2 from each Island Country** (e.g., **Micronesia, Palau, Marshall Island & Fiji**) on all four GLOBE Protocols over the project duration in one (1) group in Taiwan.
 4. Training of **20 GLOBE Teachers from Nepal** and **10 GLOBE Trainers 2 from each neighbouring countries** (e.g., **India, Sri Lanka, Bhutan, and Maldives**) on all four GLOBE Protocols over the project duration in one (1) group in **Nepal**.
 5. Development and translation of GLOBE resource/ Training material in **Vietnamese & Filipino** for GLOBE Vietnam & GLOBE Philippines.

GLOBE CAPACITY BUILDING TRAINING IN ASIA - PACIFIC REGION Contd.

Strategy:

This proposal would be executed within the framework of the GLOBE Training Program Plan for Asia – Pacific Region.

i. **Selection of Participants:** 90 Schools/Teachers & 60 GLOBE Trainers from Asia Pacific Regional Countries will be selected. The schools selected will be on the basis of their geographical distribution in different ecological climate.

ii. **Development of Resource Material:** GLOBE Resources material will be developed in Vietnamese & Filipino for GLOBE Vietnam & GLOBE Philippines. In the translated resource material detailed information about the protocols covered under hands –on environmental learning GLOBE Program will be provide. These materials will be distributed to all the teachers & Trainer’s trained during the training workshop.

iii. Training Workshops:

a) **Four Teachers Training Workshops of three days** each will be conducted, in which 50 selected teachers (one teacher from each school) from all the selected countries will attend the training programme.

GLOBE CAPACITY BUILDING TRAINING IN ASIA - PACIFIC REGION Contd.

b) Two Trainer Training Workshops of three days each will be conducted, in which 40 trainers from both countries will attend the training programme.

iv. Selection of Participants:

- The selection of trainer and schools will be done by CCs based on the criteria suggested by the GIO & RCO for the GLOBE Program.
- Master trainer who will be covering different protocols of the GLOBE Program during the three-day Teachers & Trainer Training Workshop will be selected by GIO/RCO.

Impact of the Project: -

Following outcomes are expected from the project;

- ✓ Increase in number of new GLOBE Trainer's among the regional Countries which doesn't have many trainers.
- ✓ Increase in number of new GLOBE Teacher's among the regional Countries.
- ✓ It will help in involving the non-English medium schools in GLOBE program
- ✓ Local environmental data will be collected through schools & authentic data collection is also expected.
- ✓ School based students research project on Environment will be promoted.
- ✓ Scientific and research skill of the student on environmental research will be developed.
- ✓ Opportunity will be open to widen the wings of the GLOBE program

GLOBE CAPACITY BUILDING TRAINING IN ASIA - PACIFIC REGION Contd.

Sustainability

- Transfer of expertise will help in sustainable practices for data collection and data quality control, GLOBE program implementation, and successful program outcomes.
- Involvement of the Country coordinators & Trainers will help in making the GLOBE Program assessable at grass root level
- The participants attending the workshops will be trained to undertake follow up activities to develop programs to promote GLOBE by involving the community. This will be good example of sustainability to encourage the community realize how they can contribute in improving Environment around the community.





THANKS!



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