Taiwan

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Cooperating organizations:
None

Participating schools:
1. The Affiliated Senior High School of National Taiwan Normal University
2. The Affiliated Jhongli Senior High School of National Central University
3. National Wu-Ling Senior High School
4. National Lo-Tung Senior High School
5. National Chia-Yi Girls' Senior High School
6. Kaohsiung Municipal Girls' Senior High School

7. New Taipei Municipal DanFeng High School
8. National Chutung Senior High School
9. National MiaoLi Senior High School
10. Yin-Pei Junior high school
11. Nan-Kwang Senior High School
12. National Feng-Shan Senior High School
13. New Taipei Municipal Jin-Shan High School
14. Keelung Municipal Anle Senior High School
15. National Keelung Senior High School
16. Taipei Municipal Ming Lun High School
17. Taipei Municipal Zhongshan Girls High School
18. Taipei Municipal Jianguo High School
19. Fudan High School
20. National Hsinchu Senior High School
21. National Feng-yuan Senior High School
22. ST. Viator Catholic High School
23. Da-Dun Elementary School, Taichung City
24. National Taichung Girls' Senior High School
25. National Changhua Senior High School
26. National Hualien Girls' Senior High School
27. Houjia Junior High School
28. Kaohsiung Municipal Youchang Junior High School
29. The Affiliated High School of National Chung Hsing University
30. Taipei Yangming High School
31. Taipei Municipal Zhong-zheng Senior High School
32. Taipei Municipal Wan Fang Senior High School
33. Tainan Municipal North District Kaiyuan Elementary School
34. Taichung Municipal Focus Junior High School
35. National Magong High School
36. National Kinmen Senior High School
37. Mingdao High School
38. Liou-Guei Senior High School
39. Kaohsiung Municipal Cianjin Junior High School
40. Fu-Sing Elementary School
41. Taipei Municipal Ming Lun High School
42. Shihcheng Elementary School
43. Gangping Elementary School
44. Shun-Tien Junior High School
45. New Taipei Municipal New Taipei Senior High School
46. Banqiao Senior High School (S'COOL)
47. Tainan First Senior High School (S'COOL)
48. Taichung First Senior High School (S'COOL)
49. Taipei Municipal Ta Tung Senior High School (S'COOL)
50. New Taipei Municipal Hsin Tien Senior High School
51. Taoyuan Municipal Xin Wu Senior High School

Funding by:
Ministry of Science and Technology, Taiwan

GLOBE protocols used in country:
Digital Multi-Day Max-Min-Current Air, Soil Temperature, Barometric Pressure Protocol, Clouds Observations, Precipitation, Relative Humidity, Surface Temperature, Davis Weather Station, Water Temperature, Water pH, Transparencies, Alkalinities, Conductivities, Nitrates, Salinities, Dissolved Oxygens, GPS

Number of schools currently reporting data (2019):
28

Description of the program in your country and recent activities in 2019:

In July 2019, GLOBE Taiwan obtained the funding from Ministry of Science and Technology (MOST), Taiwan. We hosted the three events, presented our achievement which was invited by MOST, and participated in GLOBE students exchange program which was held by GLOBE Thailand, IPST.

2019 GLOBE Taiwan Science Festival was the annual event which was cooperated with HIGH SCOPE Program and FORESEEING Program, which were funded by MOST, to hosted an exhibition to present the achievement of each program and also promote the interaction with international students. This year, 17 teachers and students from Thailand were invited to join this event. There were 27 Taiwan teacher and students showing their GLOBE science reports as well. A total of 6 posters and 2 products were presented and demonstrated. GLOBE Taiwan students showed their GLOBE atmosphere site model, which was made by themselves, to elaborate their daily observations and GLOBE activities in their school.

GLOBE Taiwan was invited by MOST to cooperate with Center for the Advancement of Science Education in National Taiwan University to host the celebration of Moon Landing. We invited two master GLOBE trainers, Ms. Dorian Janney, NASA and Mr. Peter Falcon, NASA to share the history of Apollo Mission and the educational meaning of Moon Landing through the webinar. Besides, we also invited Academician Dr. Wing-Huen Ip to deliver a talk which was related to the cooperation between US and Taiwan on the research of space technology. There were about 100 participants joining this event physically. And we also live broadcasted this event as well.

In December 2019, GLOBE Taiwan hosted “GLOBE TAIWAN SPECIAL EVENT”. This event was supported by MOST and American Institute in Taiwan (AIT) and was one of the series activities of “AIT@40”, which celebrated the forty years of U.S.-Taiwan friendship and cooperation. We invited Ms. Dorian Wood Janney and Mr. Peter C. Falcon, GLOBE master trainers and NASA senior outreach specialists, to conduct a one-day STEM education workshop for GLOBE teachers and a half day for delivering environmental lectures for GLOBE students and the general public. The main purpose of this event is to share the teaching and learning resources of NASA and GLOBE, to promote the GLOBE Observer App, and encourage students to submit their science reports to 2020 GLOBE IVSS. Meanwhile, they visited one of GLOBE Taiwan school, New Taipei Municipal New Taipei Senior High School, and interacted with teachers and students.

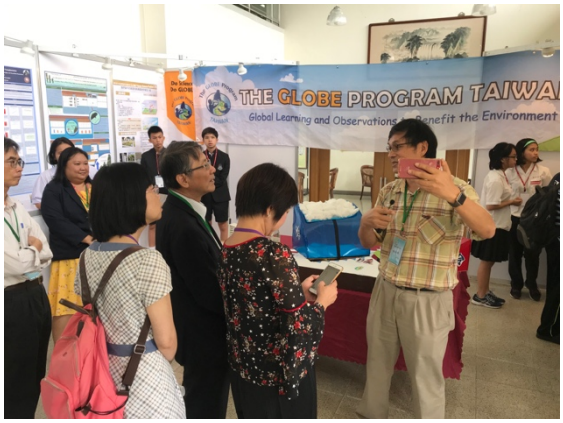
Next year, we plan to invite more schools to join GLOBE, encourage students to submit their GLOBE science reports to 2020 GLOBE IVSS, and try to call on some teachers to design and develop GLOBE teaching plans aligned the education framework in Taiwan.

GLOBE Program Taiwan Activities List of 2019

Name of Activity	Date	Venue	Number of Participants
GLOBE TAIWAN SPECIAL EVENT	2019/12/16-20	Taoyuan, Taiwan	12/17 STEM Education Workshop for teachers: 56 participants 12/18 GLOBE School visiting: 25 participants 12/19 GLOBE Science Talk for students: 225 participants 12/20 Introduction of NASA missions and GLOBE Program for College students: 25 students
GLOBE Youth Camp: GLOBE Thailand Students Exchange Program	2019/11/01-05	Bangkok, Thailand	There were 10 members, 1 staff, 3 teachers and 6 students, participating in this event.
2019 Global Science and Technology Leaders Forum	2019/10/30	Taipei, Taiwan	GLOBE Taiwan was invited to present the achievement through an exhibition.
Special Event: MOST celebrating for 50th anniversary of first Moon landing	2019/07/16	Taipei, Taiwan	100 participants joined this event physically. And we also live broadcasted this event as well.
2019 GLOBE Taiwan Science Festival	2019/07/09-13	Pintung and Kaohsiung, Taiwan	This activity was part of the achievement exhibition of HIGH SCOPE Program and FORESEEING Program. There were 34 GLOBE teachers and students, 17 are from Thailand and 28 are from Taiwan, joining this activity and presented 8 science reports and products.
2019 GLOBE Asia-Pacific Regional Meeting	2019/05/20-23	Seoul, Korea	Dr. Pay-Liam Lin, Taiwan Coordinator, attended this meeting.
US-Taiwan Space and Astronomy Exhibition – Opening Ceremony	2019/02/26	Taipei Astronomical Museum	GLOBE Taiwan Office was invited by AIT to attend “US-Taiwan Space and Astronomy Exhibition.” The theme of this event was the US-Taiwan cooperation on research and development in the field of space and astronomy.
Visiting of GLOBE Korea (KOFAC)	2019/01/15-18	National Central University, Taiwan, GLOBE School—The Affiliated Jhongli Senior High School of NCU	GLOBE Korea CC, 2 teachers, and 9 students

Appendix—Photos

2019/07/10 GLOBE Taiwan Science Festival: Students introduced what they learned and done in their schools through the model of GLOBE atmosphere site and the model of cold front, which were made by themselves.



2019/07/10 GLOBE Taiwan Science Festival: Dr. Pay-liam Lin introduced GLOBE Observer app to MOST officers.

2019/07/10 GLOBE Taiwan Science Festival: GLOBE Students, from Kaohsiung Municipal Girls' Senior High School, shared what they learned from the cloud type with Thailand teachers and students.

2019/07/10 GLOBE Taiwan Science Festival: Thailand teachers and students visited GLOBE school- Kaohsiung Municipal Girls' Senior High School.

2019/07/16 Special Event: MOST celebrating for 50th anniversary of first Moon landing

2019/10/30 2019 Global Science and Technology Leaders Forum

2019/12/17 GLOBE TAIWAN SPECIAL EVENT: STEM Education Workshop Opening

2019/12/17 GLOBE TAIWAN SPECIAL EVENT: STEM Education Workshop – Mr. Peter Falcon introduced NASA SMAP Mission

2019/12/17 GLOBE TAIWAN SPECIAL EVENT: STEM Education Workshop – Ms. Dorian Janney explained the importance of measuring and monitoring the water cycle through satellites.

2019/12/18 GLOBE School visiting: Dorian and Peter visited the GLOBE atmosphere site in New Taipei Municipal New Taipei Senior High School

2019/12/18 GLOBE School visiting: Students showed their products and introduced how they made it.

2019/12/18 GLOBE School visiting: Students shared what they learned from the earth science class.

2019/12/18 GLOBE School visiting: Group photo in New Taipei Municipal New Taipei Senior High School

2019/12/19 Dorian and Peter visited National Space Organization in Taiwan

2019/12/19 GLOBE Science Talk for students: Dorian introduced the cloud protocol and instructed how to use GLOBE Observer App.

2019/12/19 GLOBE Science Talk for students: Peter shared the resources on the NASA and GLOBE website that students can use for their IVSS reports.

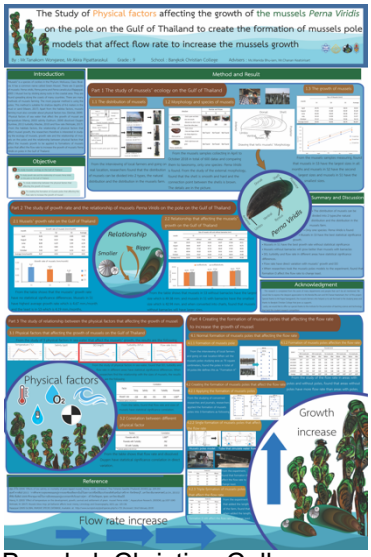
2019/12/19 GLOBE Science Talk for students: Peter demonstrated and explained the principle of radar operation.

2019/12/19 GLOBE Science Talk for students: Dorian and Peter answered students' questions.

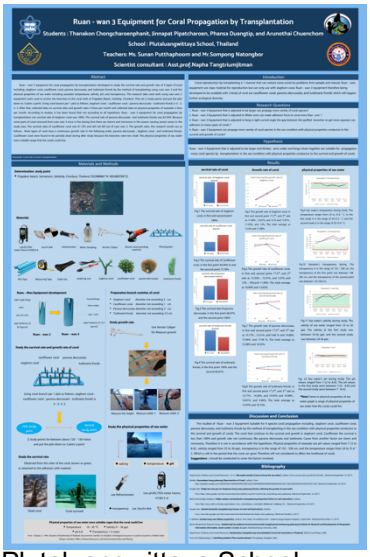
Appendix—GLOBE Students' Posters in 2019 GLOBE Taiwan Science Festival

Kaohsiung Municipal Girls' Senior High School, Taiwan

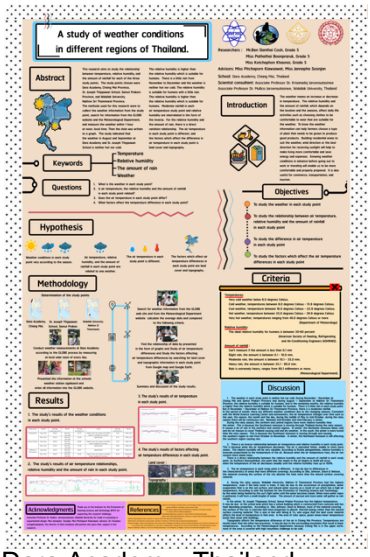
Anubansrisamrong School, Thailand



Bangkok Christian College, Thailand



Plutaluangwittaya School, Thailand



Dara Academy, Thailand

The Cold front model, made by students from Kaohsiung Municipal Girls' Senior High School, Taiwan

The model of GLOBE atmosphere site in Kaohsiung Municipal Girls' Senior High School, Taiwan