





# GLOBE Thailand Report 2017

The Institute for the Promotion of Teaching Science and Technology (IPST) Ministry of Education

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### **GLOBE Thailand Report 2017**







**Climate Change Supplementary Materials Development** 



**Cooperation with Universities in Promoting Environmental Science Research Based on STEM Education Concept** 



**Promotion of Environmental** Science Research in Thailand



**Thailand GLOBE Student Research Competition 2017** 





**Student Exchange Program** 



**GLOBE Annual Conference 2017** 





GLOBE Asia-Pacific Regional Meeting 2017



**GLOBE Train-The-Trainer** Workshop 2017





## Climate Change Supplementary Materials Development



- Climate change supplementary in Thai and English version for upper primary level (Grade 4-6) and Lower secondary level (Grade 7-9). (Teacher guide and Student book)
- To experience in Climate Change education such as Weather and Climate, Impact, Mitigation and Adaptation of Climate Change.
- To increase students' awareness of sustained natural resource and environmental conservation.











## **Cooperation with Universities in Promoting Environmental Science Research Based on STEM Education Concept**

**MFU** 

SWU

SIIT

**PSU** 



**LRU** 

RMUTI

ภาคตะวันออกเดียงเหนือ

IPST collaborating with universities to promote

local environment via STEM Education

#### **North**

Mae Fah Luang University

#### South

Thaksin University (TSU)

Walailuk University (WU)

Prince of Songkhla University Surat Thani Campus (PSU)

Suratthani Rajabhat University (SRU)

#### North Eastern

Loei Rajabhat University (LRU)

Rajamangala University of Technology Isan (RMUTI)

#### Central

Burapha University

Srinakharinwirot University (SWU)

Kasetsart University Kamphaeng Saen Campus (KU)

Sirindhorn International Institute of Technology, Thammasat University (SIIT)

2017: 11 Universities, 13 Projects 2018: 10 Universities, 11 Projects

**SRU** 

NORTH

ภาคกลาง CENTRAL

## Promotion of Environmental Science Research in Thailand

#### **Special Talk**

• IPST arranged the special talk "Earth As a System: why should we do GLOBE?" by Dr. Dixon M. Butler on 19 December, 2017 at Chonradsadornumrung, Chonburi Province. There were 1,149 participants from 13 schools.







## Promotion of Environmental Science Research in Thailand (Cont.)

#### **World Soil Day**

 World Soil Day campaign on 5 December, 2017. There were 123 postcards from all regions of Thailand and 32 postcards were selected and awarded. The campaign aimed to celebrate the World Soil Day and continue our royal initiative of King Rama IX for soil conservation and improvement.









#### 4.1 GLOBE Student Research Competition 2017

- GLOBE Student Research Competition 2017 was open to primary and secondary school students during 8 – 10 June 2017.
- 24 oral presentations and 40 poster presentations.









### 4.1 GLOBE Student Research Competition 2018 (cont.)

- GLOBE Student Research Competition 2018 held on 28 – 30 March 2018.
- 21 oral presentations and 34 poster presentations.











#### 4.2 Thailand Junior Water Prize 2017 (TJWP2017)

- To encourage students to learn about, care for, and conserve water resources.
- The winner was "A Remote Water Quality Monitoring System in Bang Pood Canal and Chao Phraya River, Nonthaburi Province" from Suankularb Wittayalai Nonthaburi School, Nonthaburi province.

Presented their research at Stockholm Junior Water Prize 2017,
 Sweden on 26 – 30 August, 2017.











#### 4.2 Thailand Junior Water Prize 2018 (cont.)

- The winner was "The Synthesis and Characterization of Sensors Based on Magnetic Nanoparticles for Heavy Metal Detection" from Kamnoetvidya Science Academy, Rayong Province.
- They will be invited to present their research at Stockholm Junior Water Prize 2018, Sweden in August, 2018.







#### **Student Exchange Program**



### 5.1 India – Thailand– Taiwan Student Exchange Program 2017 in India

- January 31 February 4, 2017 at Bhubaneswar, India.
- 11 students, teachers and scientists from St. Joseph Thiphawan school and Silacharaphiphat School
- To share and exchange experiences via presentation of their research









### Student Exchange Program (cont.)





#### 5.2 Student Exchange Program 2017 in Taiwan

- July 10 15, 2017 at Songshan Cultural and Creative Park, Taiwan.
- 14 students, teachers and scientists from Montfort College Primary Section, Princess Chulabhorn Science High School Nakhon Si Thammarat and Donchanwitthayakhom school took part in the GLOBE Asia-Pacific Science Festival
- To share and exchange experiences via presentation of their research







### Student Exchange Program (cont.)





#### 5.3 Regional GLOBE Learning Expedition in Nepal

- September 10 16, 2017 at Pokhara, Kathmandu
- 10 students, teachers and scientists from Triam Udom Suksa school, Princess Chulabhorn Science High School Trang took part in Regional GLOBE Learning Expedition
- The expedition is unique GLOBE activity which provided opportunity to the students and teachers to learn lake and mountain ecology.









### Student Exchange Program (cont.)





#### **5.4 Sunburst Environment Programme 2017**

- 12 18 November 2017 at RELC International Hotel, Singapore.
- 5 participants from Assumption College and St.Joseph Thiphawan School.
- Presented their research project "The Impact of human activities that affect the mangrove forest" in oral and poster presentation sessions.







#### **GLOBE Annual Conference**



- GLOBE Thailand joined the 21th GLOBE Annual Meeting on July 31 – 3 August, 2017 at New Haven, Connecticut, USA.
- **20 participants** from Thailand, 2 GLOBE working group members, 3 IPST staffs, 5 teachers, and 10 students.
- GLE 2018, Ireland: 6 schools (5 schools participated in GLOBE SRC 2018, 1 school didn't GLOBE data entry)









## **GLOBE Asia-Pacific Regional Meeting 2017**



**2 representatives** from IPST attended the GLOBE Asia-Pacific Regional Meeting 2017 in Philippines from May 22-24, 2017.









### **GLOBE Train-The-Trainer Workshop 2017**



- December 17th 23rd, 2017 at Burapha University, Chon Buri, Thailand.
- New 42 GLOBE Trainers
- 18 GLOBE Trainers from 3 countries (USA, Taiwan and Thailand).
  - Dr. Tony Murphy, Director of the GLOBE Implementation Office,
  - Dr. Dixon M. Butler, Chief Scientist, USA
  - Dr.Elena Sparrow, University of Alaska Fairbanks,
  - o Dr.Pay-Liam Lin, GLOBE Country Coordinator of Taiwan and National Central University,
  - 14 GLOBE Trainer, Thailand







#### **Future Activity in 2018-2019**



#### **Climate Change Train-the-Trainer Workshop**

- Climate Change supplementary for Grade 4-6 and Grade 7-9
- Apply GLOBE Protocols and Mosquito Larvae protocol
- 40-50 trainers, will be held on 22-24 June 2018



#### **Student Exchange Program 2018 in Thailand**

- "National Science and Technology Fair" on 20 25
  August 2018 at Impact Muangthong Thani, Bangkok
- Maximum 30 participants (India 10, Taiwan 10 and the other 10)

#### **Future Activity in 2018-2019**

### Implement GLOBE to IPST Standard quality school in Science Mathematics and Technology

- Teacher Training by IPST and GLOBE University network
- Follow up

#### **Promotion of Environmental Science Research**

GLOBE Campaign such as Earth Day, GLOBE Data Entry campaign

- GLOBE Student Research Competition
- Thailand Junior Water Prize
- New GLOBE Thailand website





- Department of Mineral Resources (DMR)
- Department of Environmental Quality Promotion (DEQP)
- Office of Natural Resources and Environmental Policy and Planning (ONEP)
- Thai Meteorological Department
- O Geo-Informatics and Space Technology Development Agency (GISTDA)
- Ministry of Public Health
- Department of Water Resources (DWR)
- US Embassy
- Sweden Embassy
- Stockholm International Water Institute
- Thaksin University (TSU)
- Walailuk University (WU)
- Prince of Songkhla University Surat Thani Campus (PSU)
- Loei Rajabhat University (LRU)
- Srinakharinwirot University (SWU)
- Kasetsart University Kamphaeng Saen Campus (KU)
- O Sirindhorn International Institute of Technology, Thammasat University (SIIT)
- Mahidol University (MU)
- O Suratthani Rajabhat University (SRU)
- King Mongkut's Institute of Technology Ladkrabang (KMITL)
- King Mongkut's University of Technology Thonburi (KMUTT)
- Rajamangala University of Technology Isan (RMUTI)
- Metropolitan Waterworks Authority (MWA)
- Nestle Thai LTD.
- O Government Savings Bank





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