



**Asia-Pacific  
Economic Cooperation**

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**2014/SOM1/HRDWG/EDNET/021**

Agenda item: 3.3

**Project Completion Report - HRD 05/2012A  
Emergency Preparedness Education: Learning from  
Experience, Science of Disasters, and Preparing for  
the Future (II) - Focus on Flood and Typhoon**

Purpose: Information  
Submitted by: Thailand



**Human Resources Development Working Group  
Education Network Meeting  
Ningbo, China  
19-20 February 2014**

# Project Completion Report

Please submit through your APEC Secretariat Program Director within 2 months of project completion.

## SECTION A: Project profile

<b>Project number &amp; title:</b>	S HRD 05/2012A Emergency Preparedness Education: Learning from Experience, Science of Disasters, and Preparing for the Future (II) -Focus on Flood and Typhoon		
<b>Time period covered in report:</b>	January 2013 – December 2013	<b>Date submitted:</b>	February 1, 2014
<b>Committee / WG / Fora:</b>	Human Resources Development Working Group		
<b>Project Overseer Name / Organization / Economy:</b>	Maitree Inprasitha Center for Research in Mathematics Education, Faculty of Education, Khon Kaen University / Thailand Masami Isoda Center for Research on International Cooperation in Educational Development, University of Tsukuba / Japan		

## SECTION B: Project report and reflection

**Briefly answer each of the questions below. Section B should be a maximum of 2-3 pages, inclusive of the questions and tables provided.**

### 1. **Project description:** In 3-4 sentences, describe the project and its main objectives.

The projects has been developing the program with teaching materials for APEC economies to teach teachers and children about disasters and how to save themselves from disasters such as tsunami and earthquakes (2012), typhoons and floods (2013), fires and volcanic eruptions (2014). In year 2013, this project will focus on typhoons, floods and tornado (scientifically, meteorological phenomena). In relation to following two tasks, the program with booklets on e-textbook format has been developed as for materials for schools through the lesson study approach. The materials will be used through the APEC lesson study project institutions and websites.

- a) Saving the school children from disasters: For the school management, the project develops the textbooks on the successful and un-successful cases to save our children during natural disasters with the use of visual materials and share the essential strategies of evacuations.
- b) Sharing scientific materials which should be taught in schools: To prepare teaching programs for developing safe society, the project develops the textbooks using data which is necessary to scientifically understand the mechanism and influence of disasters.

### 2. **Meeting your objectives:** Were the proposed objectives of the project met? If so, please describe how. If not, please include any major changes to the proposed scope of the project. Please outline any problems you may have encountered that resulted in delays to the delivery of the activity.

The project held two meetings for developing materials. In Tokyo, the first meeting was held in February 14-17, 2013 and 30 participants from 17 economies were participated. Numbers of observers were 120 including 110 non Japanese participants. Those observers are necessary to implement lesson study in each participating economy. Each economy engaged lesson study for preparing the e-textbooks from March to August, 2013. In September 13-16, 2013 the International Symposium held in Faculty of Education, Khon Kaen University, Thailand and 12 economies were participated. The participants included 13 international participants and 450 Thai participants with more than 100 international observers. Each economy presented its developed booklets and the plan of implementation in each economy. At least, the participating institutions showed their plans of implementation in their teacher-training program. In November and December, 2013, all participated economies were finalized their e-textbooks.

### 3. **Evaluation:** Describe how you evaluated the project upon completion? Detail the results of the evaluations conducted, if any (e.g. participant evaluation, peer review of publication, measurement of indicators, statistics demonstrating use of outputs etc.).

In phase I, 17 economies sent 30 specialists and 110 observers to attend the Tokyo meeting. Two booklets have been developed as samples in the Tokyo meeting. In phase II, 11 booklets have been developed, 6 well succeeded and 5 succeeded.

The project was evaluated through questionnaire *distributing* to speakers, panelists and specialists. Some details on the results of the evaluation were as follows;

*On a scale of 1 to 3, please rate how informative each session was for you. A rating of 3 indicates that you found the session highly informative; a rating of 1 that you did not find it informative*

	TOPIC	VERY USEFUL	SOME-WHAT USEFUL	NOT VERY USEFUL	COMMENTS (Continue on back if necessary)
1	Overall project	88.46 %	11.54 %	0	<ul style="list-style-type: none"> <li>- Excellent idea and interested issue with math</li> <li>- Very good in enhancing the awareness of MT teacher and students</li> <li>- Complex and opening mind project</li> </ul>
2	Classroom Demonstration	56%	44%	0	<ul style="list-style-type: none"> <li>- Better to have a teachers from Thailand, who knows the students</li> <li>- Need more discussion demonstration</li> <li>- Give clear example</li> <li>- I had experience , so demonstration was situation similar my experience</li> </ul>
3	Keynote Speaker	77.78%	22.22%	0	<ul style="list-style-type: none"> <li>- Give the newest success of area In MT Ed.</li> <li>- Give completely ideas</li> </ul>
4	Specialists Presentation	83.33%	16.67%	0	<ul style="list-style-type: none"> <li>- More discussion and open questions</li> <li>- Need to judge to students need</li> <li>- Give clear example</li> <li>- Give us some ideas</li> </ul>
5	School Project Exhibition	73.08%	26.92%	0	<ul style="list-style-type: none"> <li>- We need translation</li> <li>- More time and space</li> <li>- Explain in more data</li> <li>- I visited stands and I got an idea about what schools are doing here.</li> </ul>

*Would you like to see excellent, good, satisfactory, not good or bad time devoted to the following topics?*

	Topic	excellent	good	satisfactory	not good	bad
1	Overall, how was the project?	76%	24%	0	0	0
2	How were the facilitators/experts?	58.33%	33.33%	8.33%	0	0
3	How well did the project meet its objectives?	44	56	0	0	0
4	<i>How appropriate were the participants for the project?</i>	57.69%	38.46%	0	3.85%	0

**4. Key findings:** Describe the main outputs delivered and any broader outcomes achieved as a result of this project. (For example have there been any capacity building outcomes, policy or operational changes, or changes to standards or systems as a result of this activity?) Describe how project outputs relate to fora/sub fora/working group strategic and medium-term priorities and strategic priorities. Please provide examples of important findings or lessons learned arising from the project.

11 participating economies have developed e-textbooks about Flooding and Typhoon. These e-textbooks are appearing on the website for sharing. The outcomes of this project have affected policy changes. For example, Ministry of Education of Thailand has connected this project with the project of Office of Basic Education on prevention of School flooding.

**5. Next steps:** Describe any follow-up steps or projects that are planned following the completion of the activity, such as post-activity evaluations or tracer studies planned to assess the impact of this activity.

**Have the results of the activity been disseminated to participants and other stakeholders and how? What are (if any) any flow-on effects from this activity? How will this activity inform any future APEC activities?**

The project planned to share 11 developed e-textbooks among APEC member economies and will encourage relevant institute network created by this project to use in the project schools, where lesson study has been implemented. Feedbacks from this activity will be useful for develop more effective e-textbook in the third year project of this project series.

**6. Feedback for the Secretariat: Do you have any suggestions for more effective management of projects in the future? Any assessment of consultants, experts or participants that you would like to share? (*The Secretariat collates and examines feedback to identify trends for ongoing evaluation of our project management and/or communications systems.*)**

**7. Participant information:** *Please provide details, where applicable. Insert rows as needed.*

<b>Economy</b>	<b># male</b>	<b># female</b>	<b>Details</b>
Brunei Darussalam	1		Ali Hamadani Hj Md Diah, Ministry of education
Chile	2		- Raimundo Olfos, Pontificia Universidad Católica de Valparaíso, Valparaiso - Robert Araya
Hong Kong, China	1		Cheng Chun Chor Litwin, Hong Kong Institute of Education
Indonesia	4		-Subanar, QITEP in Mathematics -Fadjar Saddiq QITEP in Mathematics -, Ministry of Education
Japan	3		-Masami Isoda, University of Tsukuba - Yutaka Ohara - Yutaka Oneda
Korea	2		-Lew Hee Chan - Kwangho Lee , Korean National University of Education
Malaysia	1		Ui Hock Cheah , RECSAM
Mexico	1	1	- Marcela Santillan, Secretario Educacion Publica (SEP) - Tenoch Cedillo
Papua New Guinea	1		Aluis Kasian, Papua New Guinea Education Institution
Peru		2	- OLINDA MOLOCHE, Ministry of Education - Monica Mayumi Miyagui , Ministry of Education
The Republic of the Philippines	1	1	-Soledad Ulep, University of Philippines - Eligio Obille, University of Philippines
The Russian Federation	1		Ivan Vysotsky, Department of Education, Moscow Institute of Open Education

Singapore	1		Yeap Ban Har , MarshallC Avendish Institute
Thailand	3	3	-Maitree Inprasitha, Khon Kaen University -Auijit Pattanajak, Khon Kaen University - Narumol Inprasitha, Khon Kaen University - Narumon Changsri, Khon Kaen University -Anake Sudchumnong, Suratthani Rajabhat University - Somkiat Chobphol, Ministry of Education
United Stated		1	Patsy Wang-Iverson, Gabriella and Paul Rosenbaum Foundation
Viet Nam	2		-Tran Vui, Hue University - NGUYEN Chi Thanh, Vietnam National University
Other:			

8. **Outputs:** Please provide details, where applicable. Change headings or insert rows as needed.

	# planned	# actual	Details
# of workshops / events	2	2	2 conferences
# of publications distributed	9	9	1 proceedings 8 booklets
# of CDs distributed			
# of websites created	3	3	<a href="http://www.criced.tsukuba.ac.jp/math/">http://www.criced.tsukuba.ac.jp/math/</a> <a href="http://www.crme.kku.ac.th/apec-thai2013">http://www.crme.kku.ac.th/apec-thai2013</a> <a href="http://www.crme.kku.ac.th">http://www.crme.kku.ac.th</a>
Other:			

### SECTION C: Budget

Attach a detailed breakdown of the APEC- provided project budget, including:

- **Planned costs** (using most recently approved budget figures)
- **Actual expenditures**
- **Variance notes:** An explanation of any budget line under- or over-spent by 20% or more.

	(according to project itemized budget table)	APEC Funding/ Planned Costs (US\$)	APEC Funding/ Actual Expenditures (US\$)
	<b>DIRECT LABOUR</b>		
1	Honorarium		
2	Consultant fee		
3	Consultant Secretary Cost		
	<b>TRAVEL (ALL SPEAKERS &amp; ACTIVE PARTICIPANTS)</b>		
4	All airfares and per diem		
	<b>OTHER ITEMS</b>		
5	Publication		
6	Equipment		
7	Photocopying		
8	Communication		
	<b>TOTAL :</b>		

Variance Note :


## **SECTION D: Appendices or additions**

Please attach any of the following. This information will help us better understand your project, support overseers of similar projects and plan for future projects.



- List of **experts or consultants** utilized, with job titles and contact details, gender disaggregated where possible.
- List of **participants**, with job titles and contact details
- Event **agendas**
- Links to any relevant **websites or online material** (e.g. reports, resources created)
- Results of participant feedback or other **project evaluation** (raw and/or analyzed)
- Any **other relevant information or resources** that would help us learn more about your project

**FOR APEC SECRETARIAT USE ONLY** *APEC comments: Were APEC project guidelines followed?  
Could the project have been managed more effectively or easily by the PO?*

The project was effectively managed including following APEC guidelines. No substantive problems were encountered.



# HRD 05 2012A – Emergency Preparedness Education: Learning from Experience, Science of Disasters, and Preparing for the Future (II) -Focus on Typhoon and Flood


  



The Projects for the Priority Area by Educational Ministerial Meeting (2004, 2008, 2012)

Reporter  
Maitree Inprasitha, PhD,  
Masami Isoda, PhD.  
Project Overseers  
APEC Lesson Study Project



The Projects for the Darwin Declaration of APEC Energy Ministers (2007)

The Projects are acknowledged by the Educational Ministers at Gyeongju (2012)






## The project on going under the LS community in APEC

Country	Project Name	Project Type
Australia	NSW Department of Education	State project
Brunei	University of Brunei	Local Project
Canada	N/A	N/A
Chile	CIAE, University of Chile	National P. for curriculum dev.
China	East China N. University	Local Project
Hong Kong	North East China N. Uni.	Local Project
Indonesia	SEAMEO Oitap in Math	Regional Project
Japan	State Uni. of Yogyakarta	Local Project
Korea	MEXT	National Project
Malaysia	University of Tsukuba	National Project
Mexico	Korean National Uni. of Edu.	National Project
New Zealand	SEAMEO RECSAM	Regional Project
Papua New Guinea	University Science Malaysia	National & Local Project
Peru	Secretario Educacion Publica	National Project
Philippines	Pedagogical Uni. of Mexico	N/A
Russia	N/A	N/A
Singapore	PNG Education Institution	National Project
Chinese Taipei	Ministry of Education	National Project
Thailand	Ministry of Education	National Project
USA	Khon Kaen University	Local Project
Viet Nam	Mills College	Local & National Project
	Hue University	Local Project

**Education: Lesson Study Network Working Cycle**

Planning Meeting  
February, Japan


APEC HRD WG  
Wiki Site  
Education Network  
VTRs  
e-Textbooks

Report Meeting  
September, Thailand

*Central Fund: APEC LS Projects  
Self-Fund: Growing LS Community  
In every economy*

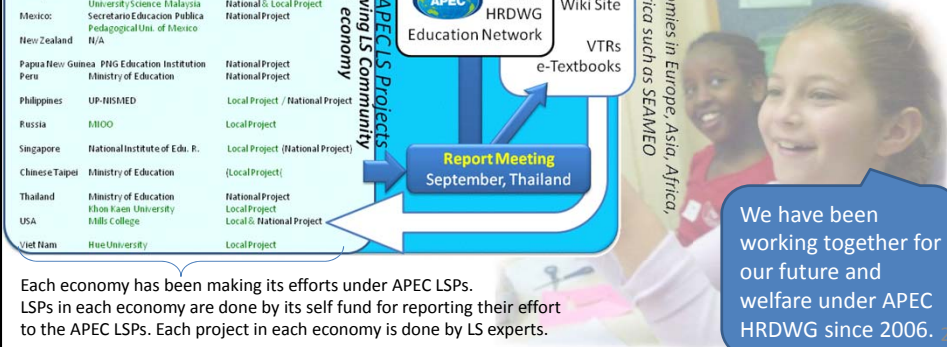
*Influential to the Other Economies in Europe, Asia, Africa,  
Central & South America such as SEAMEO*


19 economies:

- 11 Government Organizations
- 16 Major Teacher Education Institutes


We have been working together for our future and welfare under APEC HRD WG since 2006.

Each economy has been making its efforts under APEC LSPs. LSPs in each economy are done by its self fund for reporting their effort to the APEC LSPs. Each project in each economy is done by LS experts.






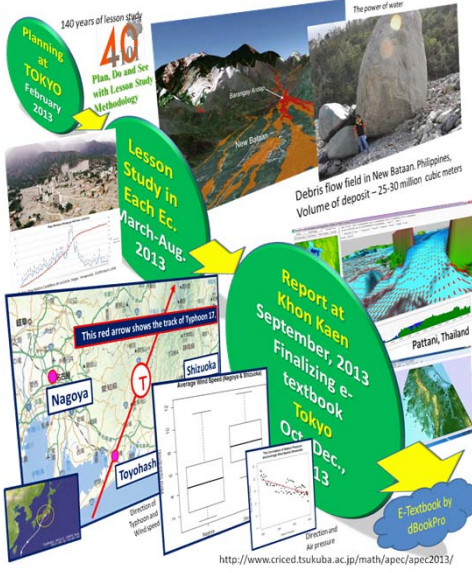
## PDCA (plan-do-check-act): Yearly Cycle



University of Tsukuba  
Japan



Khon Kaen University  
Thailand



http://www.criced.tsu.kuba.ac.jp/math/apcc/apcc2013/


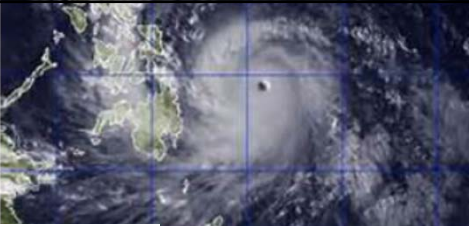




Every year:

- Planning at Tokyo by APEC fund
- Lesson study is done by self fund in each economy
- Reporting at Khon Kaen by APEC fund
- Actions are done by teacher training institutions.

Why we were supported by self-fund?

If APEC project leads us, our government might support us because it is the our issue which has the priority. Mathematics is the major literacy subject. Emergency preparedness education and science are necessary.

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press mourning to the people who passed away including the Philippines, 6000, by the typhoon and flood beyond the project NOVA.





of UP-NISMED which is the key institution of Math and Science Teacher Education in Philippines.



APEC Lesson Study movement written by Philippines



## Introduction

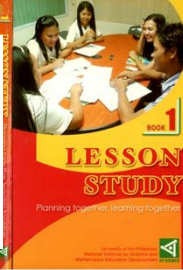
### NISMED's Journey in Adapting Lesson Study

Soledad A. Ulep & Risa L. Reyes

In 2006, the Philippines through NISMED participated in the Lesson Study Project of the Asia-Pacific Economic Cooperation (APEC) led by Tsukuba University (Japan) and Khon Kaen University (Thailand). Lesson study is an effective means of introducing innovative practices in mathematics classroom teaching and learning. As such, it is a powerful way for developing a country's human resources that can ultimately contribute to its economic progress. The countries involved in the project are Australia, Brunei, Chile, China, Indonesia, Japan, Malaysia, Mexico, Peru, Philippines, Russia, Singapore, South Korea, South Africa, Chinese Taipei, Thailand, United States of America, and Vietnam. So APEC, an international economic organization, recognized that lesson study is important in a country's economic development.

Why did APEC recognize the value of lesson study? In the Third International Mathematics and Science Study (TIMSS) and in earlier administrations of international assessments similar to TIMSS, Japanese students consistently outranked their counterparts all over the world. This phenomenon was attributed to the school-based and teacher-led continuing professional development that their teachers engage in known as lesson study

Newest Achievement in LSPs Network from the University of Philippines 2013, Oct.





Indonesia, Singapore and Brunei have been enhancing Lesson Study Nationally.

### 5. Best Practices: Beyond the limitation of APEC grant

Best Practices are produced by the self-funds in economies

Country	Organization	Project Type
Australia	NSW Department of Education	State Project
Brunei	Ministry of Education	Local Project
Canada	University of British Columbia	National Project (with MCI, Singapore)
Chile	CIIE, University of Chile	National Project for curriculum dev.
China	East China N. University	Local Project
Hong Kong	North East China N. Uni.	Local Project
Indonesia	SEAMEO QITEP in Math	Regional Project
Japan	State University of Yogyakarta	Local Project
Korea	University of Tsukuba	National Project
Malaysia	SEAMEO RECSAM	Regional Project
Mexico	University Science Malaysia	National & Local Project
New Zealand	Secretario Educacion Publica	National Project
Papua New Guinea	Pedagogical Uni. of Mexico	National Project
Peru	N/A	National Project
Philippines	PNG Education Institution	Local Project / National Project
Russia	Ministry of Education	Local Project
Singapore	UP-NISMED	Local Project (National Project)
Chinese Taipei	MIOO	(Local Project)
Thailand	Ministry of Education	National Project
USA	Khon Kaen University	Local Project
Viet Nam	Mills College	Local & National Project
	Hue University	Local Project

19 economies produce products by their funds.

### Next Step:

From top down to the Connectivity for People to People

Prefer the necessary issues for the global-local


Each Economy Issue

Trans Asia-Pacific Issue

APEC Project Community

Report Meeting September, Thailand





## Considering Future Using Mathematics and Science for Next Generation: Using Lesson Study for Growing Youth Connectivity.

- Based on
  - the Lesson Study Community
  - Emergency Preparedness Education
  - ICT, e-textbook and broadcasting through internet.
- Communication content for Free Trade Agreement Era
  - First year: Emergency Preparedness for Climate Change and Energy innovation
  - Second year: Exchange, Tax and Custom Duty
  - Third year: FTA



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## Acknowledgement



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