

ANNUAL REPORT ON PROGRAMMES AND ACTIVITIES

SEAMEO REGIONAL CENTRE FOR QITEP IN SCIENCE

FY 2011/2012

CHAPTER I

EXECUTIVE SUMMARY

SEAMEO Regional Centre for QITEP in Science is the SEAMEO Centre focusing on improving the science competences and quality of science teachers and educational personnel throughout the Southeast Asia region. Fiscal Year (FY) 2011/2012 is the third year in which SEAMEO QITEP in Science operates under the first Five-Year Development Plan (5YDP).

This executive summary highlights the Centre progress in three Key Result Areas (KRAs) including Regional Leadership, Regional Visibility, and Solid Resource Base.

In terms of Regional Leadership, The Centre conducted five regular trainings, namely; Science Laboratory Management (in 2011 and in 2012), Science Research and Development (in 2011 and in 2012), Science Classroom Supervision (in 2011), and three workshop on Developing and Planning the QITEP in Science 2012 Training Courses, Development of 2013 Programme, and also Development of QITEP in Science Profile and Publication. Until June 2012, those trainings conducted from 2009 have absorbed a total of 666 participants from Indonesia, Malaysia, Thailand, Lao PDR, Myanmar, Vietnam, and Cambodia.

Table below shows the Centre regular training course activities for FY 2011-2012 and followed by diagram shows total number of participants joining the regular training courses to date.

Table 1.1 Regular Training Courses Conducted in FY 2011-2012

No.	Training Course	Date	Number of Participant
1.	Science Laboratory Management	3 - 9 July 2011	27
2.	Science Laboratory Management	5 - 14 June 2012	25
3.	Science Research and Development	17 - 23 July 2011	29
4.	Science Research and Development	19 - 28 June 2012	28
5.	Science Classroom Supervision	8 - 14 November 2011	25

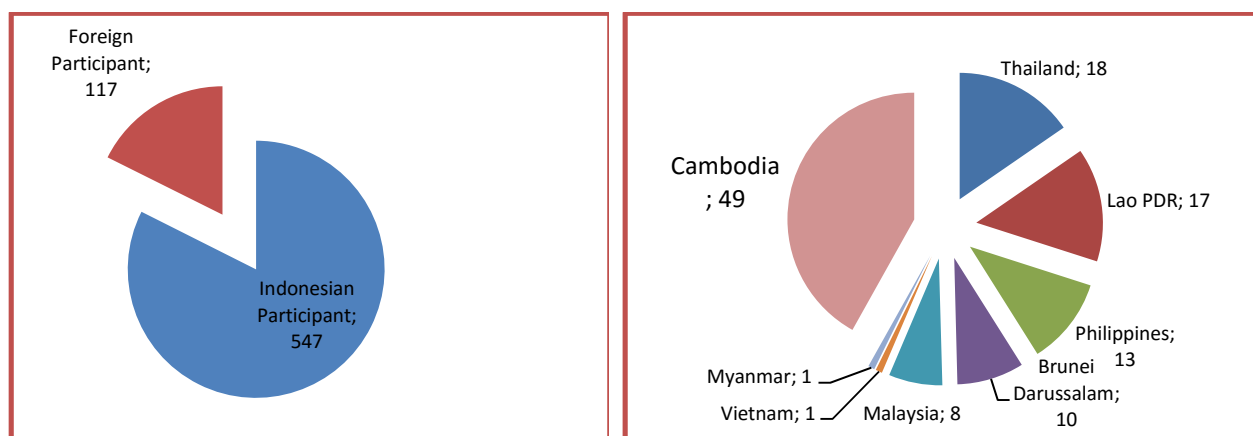


Chart 1.1 Regular Training Course Participant Distributions

In terms of Regional Visibility, there are various collaborative activities, workshops and MoU signing between QITEP in Science and regional and international institutions. These activities includes MoU signing between QITEP in Science and PT. TOTAL E&P Indonesie (TEPI), Seminar on Potential of D-Book for Science learning with Prof. Masami Isoda from Tsukuba University Japan, Workshop on Secondary Analysis of TIMSS, Workshop on Inquiry Science with Dr. Amelia Druhan from Australia Academy of Science, Workshop on Climate Change Integrated Learning Design with Dr. Julito Aligaen from SEAMEO RECSAM Malaysia.

Also, QITEP in Science has successfully conducted the 2nd International Conference (iCon) on Science Education on 17 - 20 September 2011 that was took place in Inna Beach Hotel, Bali. The theme of the conference was “Science Education for Our Future”, focusing on research and development of science curriculum, teaching and assessment practices in primary and secondary science education and Science Teacher Professional Development. There were 15 invited speakers from SEAMEO members Countries and 30 local High School teachers.



Image 1.1 The 2nd iCon in Science Education

In this Fiscal Year 2011-2012, QITEP in Science has also successfully conducted the research programme on Science Curriculum Comparative Study in SEAMEO Member Countries as part of the programme, the Centre conducted a workshop that was took place in Lembang, West Java, inviting science curriculum developer from six SEAMEO Member countries; Malaysia, Vietnam, Cambodia, Thailand, Brunei Darussalam, and The Philippine. This research will be the basis for the future programmes and activities for the Centre in improving the quality of science teacher in the region.



Image 1.2 Prof. Denis Goodrum in Science Curriculum Comparative Study Workshop

Tables below summarize the collaborative activities consisting seminars and workshop in this fiscal year.

Table 1.2 List of Collaborative Activities in FY 2011-2012

No.	Tittle of International Seminar and Workshop	Year
1.	2 nd International Conference on Science Education	2011
2.	International Seminar on Inquiry Based Science Learning, in collaboration with Institute for Systems Biology, USA	2011
3.	International Seminar on Lesson Study, in collaboration with Tsukuba University, JAPAN	2011
4.	Public Lecture “Beauty and Function of Protein, the Building Block of Life” with Robert Huber (Nobel Prize Winner Chemistry 1988)	2011

5.	Public Lecture “Recent Trends in Science Education” with Prof. Dr. Hideo Ikeda, Sc, in collaboration with MEXT, JAPAN	2012
6.	Public Lecture “The Use of ICT in Japan Science Education” with Assoc. Prof. Shiho Miyake, Ph.D, in collaboration with MEXT, JAPAN	2012
7.	Seminar on Early Childhood Science Programme in Thailand	2012
8.	Workshop on Inquiry Based Science Learning, in collaboration with Institute for Systems Biology, USA	2011
9.	Workshop on Potential D-Book, in collaboration with Tsukuba University, Japan	2011
10.	Workshop on Inquiry Science Teaching and Learning, in collaboration with Inquiry Science USA and Indonesia University of Education (UPI)	2011
11.	Workshop Science by Doing, in collaboration with Australian Academy of Science, Australia	2011
12.	Forum on Classroom Supervision of International School, in collaboration with Education Attaché of the Indonesia Republic in China	2011
13.	National Workshop on Secondary Analysis of TIMSS in collaboration with IEA Data Processing, Germany	2011
14.	The 1 st Workshop on Climate Change Integrated Learning Design , in collaboration with SEAMEO RECSAM	2011
15.	The 2 nd Workshop on Climate Change Integrated Learning Design, in collaboration with SEAMEO RECSAM	2012
16.	Workshop on QITEP in Science Program Evaluation in Collaboration with MEXT, Japan	2012

As a Centre in science education, QITEP in Science tries to emphasize its activities, especially for the training courses, in inquiry-based activities. This effort is made by the Centre by conducting some initiatives on inquiry including Workshop on Science Inquiry with Dr Caroline Kiehle from USA, Workshop on Science by Doing with Dr. Amelia Druhan from Australian Academy of Science, the visit of Prof.

Bruce Alberts, special science envoy of President Obama, and the participation of Centre in “A La Main A La Pate” Workshop in France.



Image 1.3 Prof. Bruce Alberts Visit to the Centre (left) and Dr. Caroline Kiehl Seminar on Inquiry Science

In promotional aspect, the Centre has several publishing effort including the interview of our Centre Director, Prof. Ismunandar, with Australian Embassy Radio Channel, *Kookaboora* regarding the inquiry-based science learning, media coverage of our research on Science Curriculum Comparative Study in SEAMEO Member Countries and initiative on “Little Scientist House” Project by local newspaper *Pikiran Rakyat* and *Jurnal Nasional*.

In terms of Solid Resource Based, to strengthen the institution organizational structure, certain strategic positions have been filled in consisting of Deputy Director for Programme, Head of Partnership and Collaboration Division and additional staff members has joined the Centre. Also a number of various staff capacity building activities were followed and those programmes have widened the knowledge and skill of The Centre’s personnel. Table below show various staff capacity building conducted in FY 2011-2012.

Table 1.2 Staff Capacity Building Activity FY 2011-2012

No.	Capacity Building Activity	Year
1.	Trainings on Financial Management organized by SEAMEO Secretariate	2011
2.	Workshop on e-Procurement organized by in SEAMEO BIOTROP	2011
3.	Seminar on Teaching Bussines English Using Minimax organized by <i>Sampoerna Foundation</i> , Indonesia	2011
4.	Chemical Safety and Security Officer (CSSO) Training conducted at Chulalongkorn University Bangkok Thailand, sponsored by Sandia Laboratory and CRDF Global, USA	2011
5.	Linking SEAMEO Regional Centre For QITEP In Science With Science Education Expertise In Australia	2011
6.	The 1 st Training-Workshop on Knowledge Management	2012
7.	Chemical Safety and Security Training	2012
8.	Environmental Teacher's International Convention 2012 (ETIC 2012)	2012
9.	Courses on e-Learning System Design	2012
10.	International Seminar on ICT Education	2012
11.	Workshop on the Planning and Development of Online Training of ICT Integration into Teaching and Learning for Teacher and Teacher Educator	2012
12.	The 3 rd Internasional a La Main a la Pate Seminar	2012

To undertake its programmes and activities during the fiscal year under review, The Centre augmented the funds coming from the Government of Republic Indonesia. Chart below shows the finance distribution of the Centre in conducting its activities in FY 2011-2012.

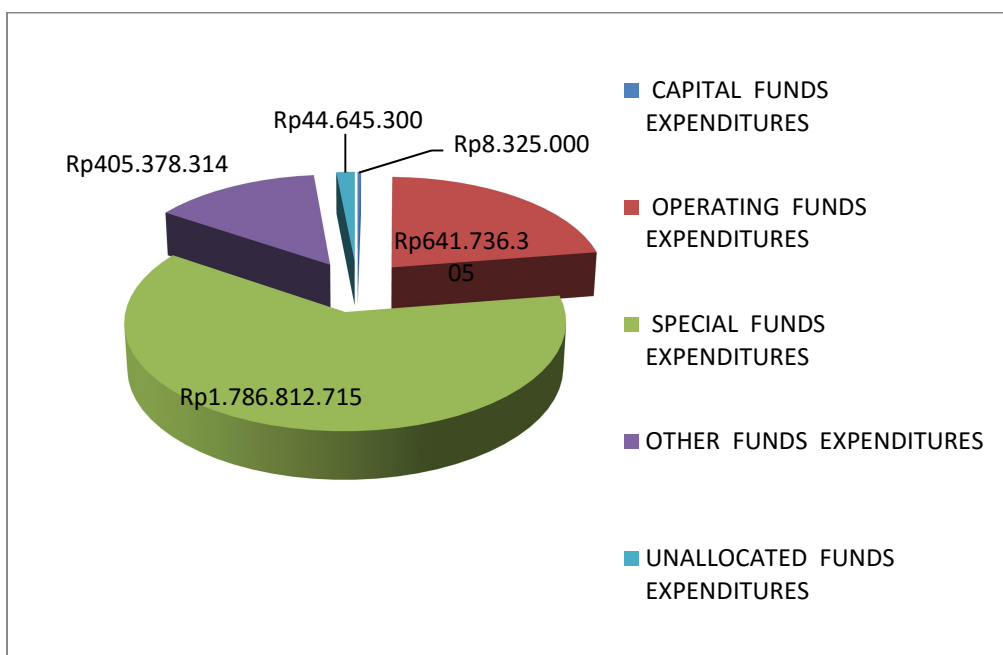


Chart 1.2 Finance Distribution FY 2011-2012

CHAPTER II

GENERAL INFORMATION

The Regional Centre for Quality Improvement of Teacher and Education Personnel (QITEP) in Science is one of the new Centres under the Southeast Asian Minister of Education Organization (SEAMEO). The main purposes of SEAMEO QITEP in Science are to assist the Member States in: (a) improving the quality of science teachers and education personnel in the region, (b) conducting research and development, providing training and information services and clearing house as well as engaging in other related activities in science within and beyond the region, (c) establishing network for the purpose of resource sharing, information exchanges, research and development in the area of science teaching, and (d) providing access for decision makers to up-to-date, accurate, and consistent data and information in science for the benefit of the region.

Vision

The vision of the Centre is to be a centre of professional excellence in the area of science teaching for teachers and education personnel within the framework of sustainable development.

Mission

The mission of the Centre is to provide relevant and quality programmes in professional excellence for Science teachers and educational personnel through capacity building activities, resource sharing, research and development, and networking.

Values

To realize the vision and carry out its mission, SEAMEO QITEP in Science strongly believes in the importance of values as principles for its staff in executing their tasks. All SEAMEO QITEP in Science staff should be aware of, comprehend and apply the Centre's values as follows.

- a. Professional
- b. Togetherness
- c. Empathy
- d. Democratic
- e. Accountable
- f. Productive
- g. Innovative
- h. Credible
- i. Life-Long Learning
- j. Global Minded

Goals

- a. To enhance the function of the organisation in managing SEAMEO QITEP in Science's resources for improving the competence of science teacher and educational personnel.
- b. To develop excellent training system that meets the demand of national and international education communities.
- c. To enhance the ICT competence of SEAMEO QITEP in Science staff.
- d. To conduct natural preservation efforts collaboratively with relevant national and international agencies.
- e. To have sufficient infrastructure and financial resources.
- f. To develop research-based training programmes cooperatively with national and international institutions.
- g. To strengthen national and international networks for improving science teacher and education personnel competency in Southeast Asia region.
- h. To develop research-based innovations and resource-sharing in science education among member countries and relevant international institutions.

Governing Board

The SEAMEO Centre for QITEP in Science Governing Board (GB) is the Centre's highest policy-making body. The GB is composed of representatives from each SEAMEO Member Country who are nominated by their respective

Ministers/Secretaries of Education and appointed by the SEAMEO Council President. The GB is responsible for operational policies, strategic planning, annual evaluation, and review of the Centre's programmes and budget. The SEAMEO Secretariat (SEAMES) Director and the Director of the Centre serve as ex-officio members of the Board.

SEAMEO Regional Centre for QITEP in Science Governing Board Members :

- Ms. Nadia Lee Siew Hoon binti Abdullah

Senior Education Officer (Group II)
Department of Schools Inspectorate
Ministry of Education
BRUNEI DARUSSALAM
- Mr. Sun Bunna

Deputy Director of Curriculum Development
Department
Ministry of Education, Youth and Sport
CAMBODIA
- Ir. Giri Suryatmana

Former Secretary, Directorate General of
Quality Improvement of Teachers and
Education Personnel
Ministry of National Education
INDONESIA
- Mr. Oudone Thepvongsa

Director, Ban Kuen Teacher Training College
Vientiane Province
LAO PDR
- Datuk Dr. Haili bin Dolhan

Rector, Institute of Teacher Education
Ministry of Education Malaysia
MALAYSIA
- Dr. Carolina S. Guerrero

Director IV, Bureau of Alternative Learning
System
Department of Education
Pasig City, Metro Manila
PHILIPPINES

- Dr. Charles Chew
Master Teacher
Academy of Singapore Teachers
Ministry of Education
REPUBLIC OF SINGAPORE
- Dr. Pornpun Waitayangkoon
President of The Institute for the Promotion of
Teaching Science and Technology
THAILAND
- Assoc. Prof. Dr. Le Phuoc
Minh
Vice Rector Institute for Education Management
(NIEM) Hanoi
VIETNAM
- Dr. Than Soe
Pro Rector
Patheingyi University
MYANMAR

Organizational Structure

SEAMEO Regional Centre for QITEP in Science is headed by a Director and assisted by two Deputy Directors: Deputy Director for Programme and Deputy Director for Administration. Under the two Deputy Directors, there are four divisions, namely: Intellectual for Policy Makers and Experts/Capacity Building/Trainings Division, ICT and Network Division, Personnel, Finance and Infrastructure Division, International Public Relations & Marketing, Partnership/ Collaboration Division.

CHAPTER III

KEY RESULT AREA

KRA 1 : Regional Leadership

Capacity Building

To increase its capacity building, the Centre conducted training courses, workshops, and Monitoring and Evaluation programmes as follows.

Training Courses:

i) Science Laboratory Management

The Centre conducted training course on Science Laboratory Management in two batches which were in 2011 and 2012. The training programme goals were to improve the laboratory management competence of science teachers in enhancing the quality of teaching-learning in secondary education. The venue were in SEAMEO Centre for QITEP in Science, Bandung - Indonesia.

The first batch was carried out on 3 - 9 July 2011. The participants of the programme consisted of 27 science teachers from Indonesia, Lao PDR, Malaysia, Philippines, and Thailand.



The resource persons were experts of science education and science laboratory management, namely; Prof. Ismunandar (QITEP in Science/Bandung Institute of Technology), Prof. Triyanta, Ph.D, Prof. Djulia Onggo, and DR. Yessi Permana (Bandung Institute of Technology), Dr. Sediono Abdullah and Drs. Dadan Muslih, M.T (CDETEP in Science).

The second batch was conducted on 5 - 14 June 2012. The training was attended by 25 participants. The participants are from Indonesia, Malaysia, Lao PDR, Cambodia, and Thailand.



QITEP in Science also took advantage of technology of Google Sites as the means of delivering teaching materials of each training participant as well as an open forum to accommodate their aspirations throughout the training. It is expected that some of these innovations can improve the quality of our Centre services in order to improve the quality of educators and educational personnel in the region of Southeast Asia.



The Centre invited experts and resource persons from several universities namely Dr. Sri Anggraeni, Dr. Anna Ratnawulan, and Dr. Setya Utari (Indonesia University of Education), Dr. Yessi Permana (Bandung Institute of Technology), and institutions and also staffs from the Centre as well.

ii) Science Research and Development

In this Fiscal Year, QITEP in Science also conducted training course on Science Research and Development in two batches. The training aimed at enhancing science teacher skill to establish science research culture for student and to assist student to conduct science research project in their school. The training materials delivered were consisting of Basic Science Research Skills and Methodology, Statistical Techniques Used in Science Research, Proposal and Scientific Report Development, and also Managing Science School Club.

The first batch was held on 17 - 23 July in Bandung, Indonesia and participated by 29 science teacher from Indonesia, Malaysia, Lao PDR, Thailand, and The Philippine.



The training was supported by experts from the Centre of Development and Empowerment of Teachers and Educational Personnel (CDETEP) in Science, and Bandung Institute of Technology namely Dr. Anggraini Barliani, Dr. Ciptati, and Dra. Lenny Herliawatie, M.Sc

The second batch was conducted on 19 - 28 June 2012 and was participated by 28 science teacher from Indonesia, Malaysia, Vietnam, Thailand, Lao PDR, and The Philippine.



The trainers invited were from Bandung Institute of Technology, Indonesia University of Education, CDTEP in Science, QITEP in Science and also Hiroshima University, Japan, Prof. Kinya Shimizu with his three student college who are also having research and gives more value to the training.

iii) Science Classroom Supervision

The Capacity and Commitment of principals are vital to the quality of educational outcomes and most education system in the world requires high quality teacher and leaders working in school. As an effort to meet those challenges, SEAMEO QITEP in Science conducted Training Course on Science Classroom Supervision from 8 - 14 November in Dago Highland Hotel, Bandung, West Java. The goal was to improve the competencies of principal in enhancing the quality of science educational personnel by implementing school based management to achieve an effective school management.



The training was attended by 21 principals from Indonesia, 1 school supervisor from Lao PDR, 2 from Philippine and 1 from Malaysia.



The expert and resource persons invited in this training including Ir. Indra Djati Sidi, Ph.D from Bandung Institute of Technology (ITB), Dr. J. Fernandez from SEAMEO BIOTROP, Dr. Ida Kaniawati from Indonesia University of Education (UPI), Dr. I Made Alit Mariana and Tati Setiawati, M.Pd from CDETEP in Science and also the instructors from QITEP in Science.

Workshops on Program, Curriculum and Material Development of QITEP in Science Training Courses.

To assure the quality of The Centre's training courses, the curriculum and training materials are developed and reviewed by the experts from related fields far before the training will be conducted. This workshop was held on 5 - 10 March 2012 participated by experts from Bandung Institute of Technology and Indonesia University of Education. The output from this workshop were the training guidebooks and learning materials that will be used in The Centre's training courses.

Monitoring and Evaluation (Monev) Program

Monitoring and Evaluation (Monev) program aimed at having feedback in order to improve and to find the effectiveness of planning and implementation on the following training courses of QITEP in Science and also to find out the impact the QIS training programmes on the participants' learning process at school. This activity took place in five countries and five Provinces in Indonesia. The Monev team collected data and information through alumni of the QITEP in Science courses by using instrument, such as; questionnaires, Focus Group Discussion (FGD), observation, and field notes to see the processes of learning in schools.

In August 2011, the Centre held Monev activity in five countries; Malaysia, Lao PDR, Brunei Darussalam, Thailand, and Philipinne. Two or three officers were dispatched for four days to conduct Monev. The table below shows the team member and respondents of each Monev Activities.

No.	Country	Date	Team	Respondent
1.	Malaysia	3 - 6 August 2011	<ul style="list-style-type: none"> Mr. Kandi Mr. Reza Setiawan 	<ul style="list-style-type: none"> Mr. Anandan Kaniapan Ms. Aizatul Adzwa
2.	Lao PDR	3 - 6 August 2011	<ul style="list-style-type: none"> Ms. Eneng Susilawati Mr. Maman Wijaya 	<ul style="list-style-type: none"> Khampeine Bownjingm Chaleunsack Ounkeo Chittranond Voradeth Chanthay Phounsavath

				<ul style="list-style-type: none"> ▪ Khamboo Vongsengkeo ▪ Thotsakanh Sitthivon
3.	Brunei Darussalam	1 - 4 August 2011	<ul style="list-style-type: none"> ▪ Ms. Chatin Fakara ▪ Ms. Lili Indarti 	<ul style="list-style-type: none"> ▪ Mr. Muh. Azman Abd. Bundol ▪ Ms. Lee Shiaw Heng ▪ Ms. Lim Soh Ngo ▪ Ms. Siti Hawa Hj. Mat Noor ▪ Ms. Lim Yen Tsern ▪ Ms. Rashikah Hj. Abdul Samad ▪ Mr. H. Mohd. Saiful bahrin bin Hj. Sabli ▪ Mr. Chung Yun Onn
4.	Thailand	17 - 20 August 2011	<ul style="list-style-type: none"> ▪ Mr. Komarudin ▪ Mr. I Made Alit Mariana ▪ Ms. Eka Danti Agustiani 	<ul style="list-style-type: none"> ▪ Mr. Saronyou Srisomporn ▪ Mr. O Phart Phratep ▪ Ms. Ampai Huangthong
5.	Philippines	22 - 25 August 2011	<ul style="list-style-type: none"> ▪ Prof. Ismunandar. ▪ Mr. Wita Sutrisno ▪ Ms. Lia Zalilia 	<ul style="list-style-type: none"> ▪ Mr. Joseph E. Vineles ▪ Ms. Maria Victoria D. Abcede ▪ Ms. Vivian Intatano ▪ Ms. Dolores B. Samaniego ▪ Ms. Ma. Pilar P. Carmona

KRA 2 : Regional Visibility

Strengthening linkages among centers, national, regional, and international institutions

The main purpose for SEAMEO Regional Centre for QITEP in Science in increasing the linkages with national, regional, and international institution was to develop networking, to increase the access and to establish cooperation and recognition. The following are list of collaboration and networking activities conducted by the Centre during FY 2011/2012.

i) Prof. Bruce Alberts Visit (President Obama Special Envoy on Science)

Prof. Dr. Bruce Alberts is an accomplished scientist in the fields of biochemistry and molecular biology and the former President of the U. S. National Academies of Science in Washington, D.C. He came to visit Indonesia in his capacity as President Obama's Science Envoy.



He also visited SEAMEO Regional Center for QITEP in Science on 5 July 2011. In his visit, he gave a short presentation to participants of Training Course on Science Laboratory Management and all management of QITEP in Science.

ii) Workshop on Inquiry Science with Dr. Caroline Kiehle

This workshop was held on July 2011 participated by science educational personnel. Dr. Caroline Kiehle explained about the role and importance of

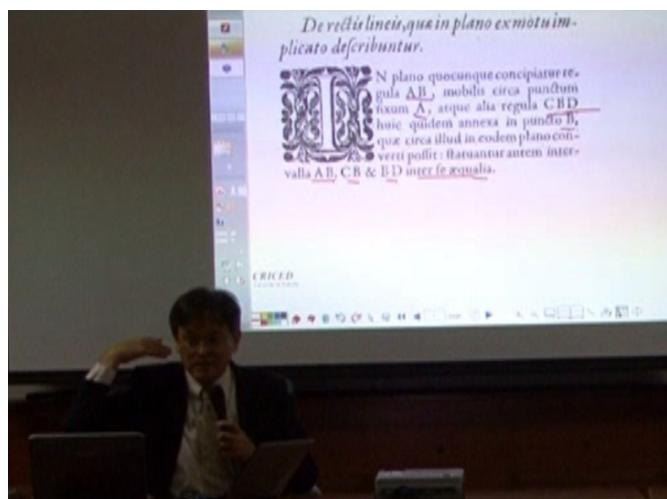
inquiry for science learning, especially for elementary level student to engage their interest in science subject.



Dr. Kiehle also presented the stages of science teacher professional development used in USA to enhance the teaching competence of US science teacher in science subject.

iii) Workshop on Potential of Digital Book (D-Book) for Science Learning with Prof. Masami Isoda

This workshop was held in July 2011. In his presentation, Prof Masami Isoda introduced the new technology and approach for science learning in school using D-Book.



This technology provides the teacher with a more interactive learning material that can be delivered to students to enhance their understanding in math and science subject.

iv) 2nd International Conference on Science Education and Teacher Professional Development

The 2nd International Conference on Science Education and Science Teacher Professional Development (ICon) provides opportunities for teachers, educators, scholars and researchers around the globe who are interested in science education to discuss and share ideas, practices and recent development in science education and Science Teacher Professional Development.



The theme of the conference was “Science Education for Our Future”. The conference focused on research and development of science curriculum, teaching and assessment practices in primary and secondary science education and Science Teacher Professional Development. We anticipated to involve science educators and school science teachers from different parts of the world to exchange research work and best practices, to share concerns and experiences in the learning, teaching and assessment of science, which are relevant to the needs and development of the science education community around the world.



There were 15 invited speakers from SEAMEO members Countries, such as; Dr. Caroline Kiehle and Ms. Barbara Schultz from USA, Dr. Amelia Druhan from Australia, Prof. Ma Hongjia from China, Dr. Haili bin Dolhan and Dr. Nagalingam from Malaysia, Kanchulee Punyain, M.Ed and Kusalin Musical, Ph.D from Thailand, Dr. Charles Chew and Dr. Raymond Tsoi from Singapore, Set

Seng from Cambodia, Mark Doyle and Ester Manurung from USAID and 30 local High School teachers.

v) Workshop on Science by Doing

SEAMEO QITEP in Science had collaboration with Australia Academy of Science to conduct workshop on Science by Doing. Dr. Amelia Druhan as director of Science by Doing led the workshop in Bali on 14th September 2011 and also in Bandung on 16 September 2011.



The Bali Workshop was followed by teachers and education personnel from Indonesia and also SEAMEO Member Countries. The Bandung Workshop that was held in CDETEP in Science was participated by 30 secondary school science teachers from West Java.

The main objective of this workshop was to develop skill of questioning as science is about exploring scientific phenomena and it is very important to engage students to make question in the case of learning science.

vi) Workshop on Inquiry Science

On 15-16 September 2011, SEAMEO QITEP in Science in cooperation with Indonesia University of Education (UPI) conducted Workshop on Inquiry Science.



The Workshop was guided by Dr. Caroline Kiehle and Barbara Schultz from Inquiry Science USA. The main objective of this workshop was to raise awareness on the importance of inquiry methods in learning science.

vii) Workshop On The Reduction Of Earthquake Disaster Risk For Teachers Around Lembang Fault

SEAMEO QITEP in Science in the collaboration with Pusat Penelitian dan Mitigasi Bencana (PPMB) or Disaster Mitigation and Research Center of ITB conducted the workshop on the Reduction of Earthquake Disaster Risk for Teachers around Lembang Fault. The workshop was held on 18 November 2011 at the Boscha Observatory of ITB, Lembang, Indonesia, attended by 24 teachers of schools in Lembang areas.



Key speakers involved in the workshop consisted of Dr. Irwan Meilano, In In Wahdiny, S. Sos., MT, Aria Mariany, St., MT from PPMB ITB, Ir. H. Dani Prianto Hadi, MM and Drs. H. Dadang Ronda, M. Si from Badan Penanggulangan Bencana Daerah (BPBD) or Board of Local Disaster Management of West Java Province. Participants were informed about the characteristics of Lembang fault, risk of living in the area, local policy of disaster management, disaster awareness development and necessary actions to be taken (mitigation) in a disaster.

viii) Forum On Classroom Supervision Of International Schools

On 28 November 2011, SEAMEO Regional Centre for QITEP in Science in the cooperation with the Education Attaché of the Embassy of the Indonesian Republic in China convened the Forum on Classroom Supervision of International Schools taking place at the Centre. Twenty educators of private and public schools in Bandung and a representative of the local education office of Bandung participated in the mentioned occasion.



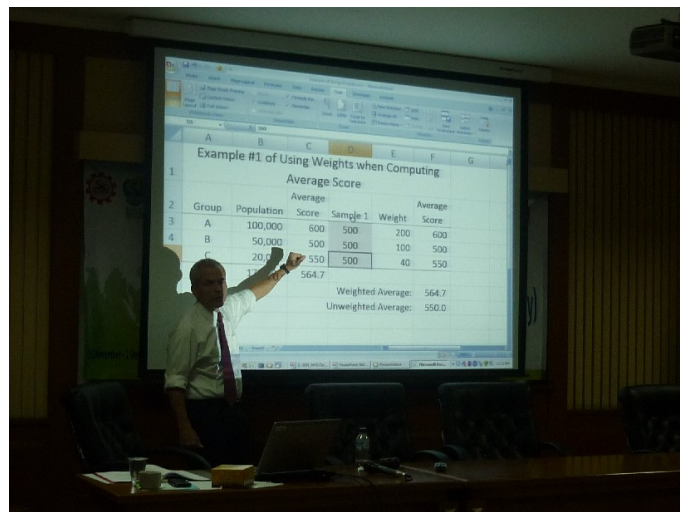
Mr. Zou Fu Lin, the Vice Principle of Middle School No. 39, Beijing, China, accompanied by Mr. Han Xiaowei, the representative of Education Attaché of the Embassy of the Indonesian Republic in China, shared information and experience of conducting classroom supervision in China generally and at Middle School No. 39, Beijing, specifically.



The forum was not only for sharing but also providing chance for mutual cooperation between schools in Bandung and the Middle School No. 39, Beijing, China. The forum is the start of future sister for education advancement.

ix) Regional Workshop On Secondary Analysis Of TIMSS (Using Timss Databases)

SEAMEO Regional Centre for QITEP in Science, in the cooperation with IEA Data Processing and Research Centre, Germany, conducted the Regional Workshop on Secondary Analysis (Using TIMSS Databases) on 30 November - 2 December 2011. The key speakers were Mr. Eugenio F. Fernandez, the Unit Head of the Analysis and Research Unit, and Mr. Plamen Mirachyisky, Research Associate.



The main topics of the workshop were Analysis and Design Issues, Review of survey materials and preparation of research question, Using the IDB Analyzer TIMSS Data, Evaluating Statistical Significance, Combining variables, creating and validating indices, and personal work. Taking place at the Centre, the workshop was attended by 25 teachers and education personnel in Indonesia.



After joining the workshop, participants were expected to be able to formulate the necessary action to be taken referring to the secondary analysis of TIMSS for the improvement of science and mathematics education in Indonesia.

x) Workshop On Climate Change Integrated Learning Design

Issue of global warming is alarming and the impact of climatic change is disastrous. Today's youths are most likely to experience and suffer the effects of climate change much more than we do today, and they will be forced to address the issue or vanish with the vanishing resources. The biggest challenge for the 21st century education system is how to integrate real issues in the education system to develop scientific skills for the generation to come to cope with ever changing environment.

In collaboration with SEAMEO RECSAM and funded by Asia Pacific Network (APN), SEAMEO QITEP in Science conducted Workshop on Climate Change Integrated Learning Design in 12-13 January 2012. The resource person was Mr. Julito C. Aligaen, senior scientist from SEAMEO RECSAM Malaysia, and participated by Headmasters, Teachers, and Curriculum Developers in West Java. The main objective was to design integrated curriculum for sustainable development to be applied across Southeast Asia Countries.



Several subjects were presented and discussed that consisted of Climate Change Issues as Central focus for Climate Change Integrated Education Model; Weather Instruments, How to use it, How to integrate it in Concept and Framework of Socio Scientific Issue (SSI); The Process and Socio Scientific Framework (Exercise); Presentation and Discussion on the Research Design; Workshop (Making SSI as Framework to Prepare Climate Change Integrated Education project at school or with Community); and Presentation of Outputs; Critiquing, revising and finalizing.



At the end of the workshop, the participants were given rain gauge and also aneroid barometer as souvenirs from the project.

xi) Workshop on QITEP in Science Program Evaluation by Experts from MEXT, Japan

From 19 - 21 March 2012, Ministry of Education, Youth and Sport (MEXT) Japan sent two experts namely DR. Hideo Ikeda from Hiroshima University and Dr. Shiho Miyake from Kobe University to QITEP in Science. This program was aimed to help the Centre to evaluate the training programs and develop recommendations for the future training course to have better quality and performance as well. The evaluation was consisted of 5 aspects which were relevancy, effectiveness, efficiency, impact, and sustainability.

xii) Seminar on Early Childhood Science Programme in Thailand

The introduction and nurturing of science to children from an early age is seen to be needed. Psychological theory that says children can only think concretely since age of six or seven, apparently collapsed with recent studies that can proved how an early age is very potential to be introduced to natural phenomena. This became one of the reasons of SEAMEO QITEP in Science as a centre that gives more attention for quality improvement of teachers and educational personnel to invite Dr. Kusalin Musikul, PhD from Thailand to share her experience with us. Dr. Kusalin Musikul, PhD is one of the key persons in her country on the success of Early Childhood Science Education implementation. Based on the success of the system of the implementation on early childhood science program in Thailand and Germany, SEAMEO QITEP in Science planned to adopt the system and implemented it in Indonesia by the name Rumah ILMU or Rumah Ilmuwan Muda (Young Scientists House). Through her involvement on this programme, it is expected that we will be able to learn from Thailand in order that we can improve our science education system for early childhood to have a better future, because science is the basis of technology, while the right technology will be the basis of progress and prosperity of a nation. Since our children have already aware of the spirit of science, they can learn a higher concept on science in an easier way.



It is also hoped that SEAMEO QITEP in Science and other Institutions who have similar concern, such as; PPPPTK TK & PLB, PPPNFI, PPPPTK IPA, and also the Directorate General of Early Childhood Education represented by Ms. Ena Suhaenah, can have a harmonious collaboration to the realization of Rumah ILMU which also uses science to develop basic learning skills and socialization for working in groups.

xiii) Workshop on Science Curriculum Comparison Study

This workshop was conducted from 28 - 31 May 2012 in Lembang, West Java and took place as a part of the Centre's research and development program in 2012. In the workshop, which was attended by curriculum developers of the Southeast Asia Ministries of Education, a more detail information on the science curriculum development of each member countries were exposed, as well as confirmation and discussion on the results of the questionnaire. Furthermore, recommendations of the best model to be adopted for implementation in the SEAMEO member countries were brought about. The expected result of this study is the materials for development of science literacy test methods in the regional scale of Southeast Asia. Representatives of SEAMEO member countries who attended the workshop were Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, and Thailand.



As one of the closest associate member countries of SEAMEO, Australia also contributed ideas associated with science curriculum. The representative was Prof. Dennis Goodrum, an expert from the Australian Academy of Science Institutions. He is one of the experts involved in the preparation of the Australia's national curriculum, which has been implemented in 2012.



The expected results of the workshop is the compilation of science curriculum from 11 SEAMEO member countries and the report of the results on comparative study, including recommendations for science curriculum development for each member countries, especially for the development of test methods of science literacy in Southeast Asia. Thus, the efforts of SEAMEO to improve science literacy in Southeast Asia will be more focused and measurable with a strong foundation of research outcomes and testing.

xiv) Progress on Little Scientist House (LSH) Projects

Inquiry based science learning will be better if it can be implemented since in early childhood education. In the discussion on Possible Collaboration between SEAMEO Centres and Little Scientists' House (Haus der Kleinen Forscher) Programme Germany which was conducted on 22 November 2011 in IPST, Bangkok, SEAMEO QITEP in Science was recommended to implement Little Scientists' Programme (LSH) in Indonesia, mentored by IPST. During March - June 2012, the centre had conducted several activities to pilot the project:

- i. learning visit to IPST and project schools in Thailand (March 2012)
- ii. consultative communications and signing a Memorandum of Agreement of Little Scientists' House between Stiftung Haus der Kleinen Forscher and SEAMEO QITEP in Science
- iii. consultation and learning from Little Scientists' House Programme Coordinator in Thailand (Nanmeebooks and IPST)
- iv. developing plan for 3 years project activities (2012, 2013 and 2014)
- v. presentation to introduce and get support from Indonesian Government Institutions, other related stakeholders and potential sponsors
- vi. Conducted a workshop and direct discussion with resource person from IPST in QITEP in Science' centre.

Increase means for stakeholders to access SEAMEO programs

To ensure accessibility for our stakeholder to the programs and activities information, The Centre has also produced some publications as follows.

i) Scientific Publication**a. Proceeding on 2nd International Conference (ICon) on Science Education**

QITEP in Science has successfully published the proceeding of 2nd International Conference (ICon) on Science Education. This proceeding comprises of 15 presented papers from the conference that was took place in Bali in September 2011.

b. Proceeding on Science Curriculum Comparative Study in SEAMEO Countries

As the result of the Centre research program in 2012, QITEP in Science has successfully produced the proceeding on the research of Science Curriculum Comparative Study in SEAMEO Countries. This proceeding consist report on science curriculum historical background, development, general student and science teacher competencies, evaluation, and monitoring on six SEAMEO Member countries that were the objects of this research programme.

ii) QITEP in Science in The Media

As a new centre, QITEP in Science finds it necessary to spread the information about all the activities, programmes, and initiatives made by the Centre to generate good attention from audiences in the region. The Centre has made efforts to approach several mass media to realize this need.

a. Interview with Australian Embassy Radio Channel

In September 2011, Kookaburra, the Australian Emabassy Radio Channel, interviewed the Centre Director, Prof. Ismunandar, regarding the initiatives on promoting inquiry-based science learning to science teacher in Bandung. In collaboration with Dr. Amelia Druhan, Director of Science by Doing Centre in Australia, QITEP in Science provided a workshop in Bandung to introduce the 5E (engage, explore, explain, elaborate, evaluate) concept to secondary level science teacher in Bandung region. The radio coverage titled “*Pendekatan Baru Pendidikan Sains Sekolah Menengah* (a New Approach to Secondary Level School Science Education)”, could be downloaded in the radio website:

<http://www.indonesia.embassy.gov.au/jaktindonesian/radio.html>

b. Media Coverage on Local Newspaper

The Centre also has several mass media coverage by local newspaper. The first one is media coverage by “*Pikiran Rakyat*” newspaper on research on Science Curriculum Comparative Study in SEAMEO Member Countries.



The second media coverage is by “*Jurnal Nasional*” newspaper that covered the Centre’s initiative on “Little Scientist House” Project, an initiative to introduce science in early childhood students.

iii) Centre Website

a. The Centre Website

Through www.qitepscience.org, the Centre provides all information about the recent and planned activities such as training courses, workshops, seminars, etc. This information are updated regularly.

No.	Course Title	Status	Date	Application Deadline	Detail
1	Training Course on Science Classroom Supervision	OPEN	3 - 12 October 2012	10 September 2012	SCS
2	Training Course on Environmental Education	OPEN	4 - 13 July 2012	11 June 2012	EE
3	Training Course on Earth and Space Science	OPEN	16 - 25 October 2012	24 September 2012	ESS
4	Training Course on Science Laboratory Management	CLOSE	9 - 14 June 2012	9 May 2012	LAB

The Centre also uses the website to select the candidate participants, currently only Indonesian candidate, through the online registration for the regular courses to make sure that any interested science teacher throughout Indonesia can access and applies, as long as they are connected online.

b. Online Video Courses Massachusetts Institute of Technology (MIT)

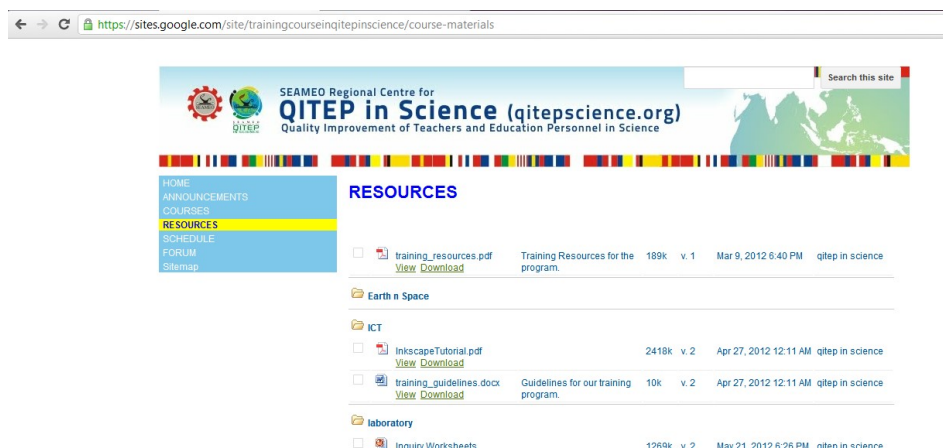
To provide a quality science learning resources, the Centre have translated physics video courses from Massachusetts Institute of Technology (MIT) into Indonesian language and also as a follow up from the MoU signed between Indonesian Vice Minister of Education and MIT.



These video resources are available online through the Centre website to be easily accessed and to expand the coverage of users.

c. Google Site

Starting from 2012, the Centre tries to use online-based media as part of its management tools for the regular training courses. The ICT and Network Division have developed an online media using Google Site, a free web-based facility from Google.

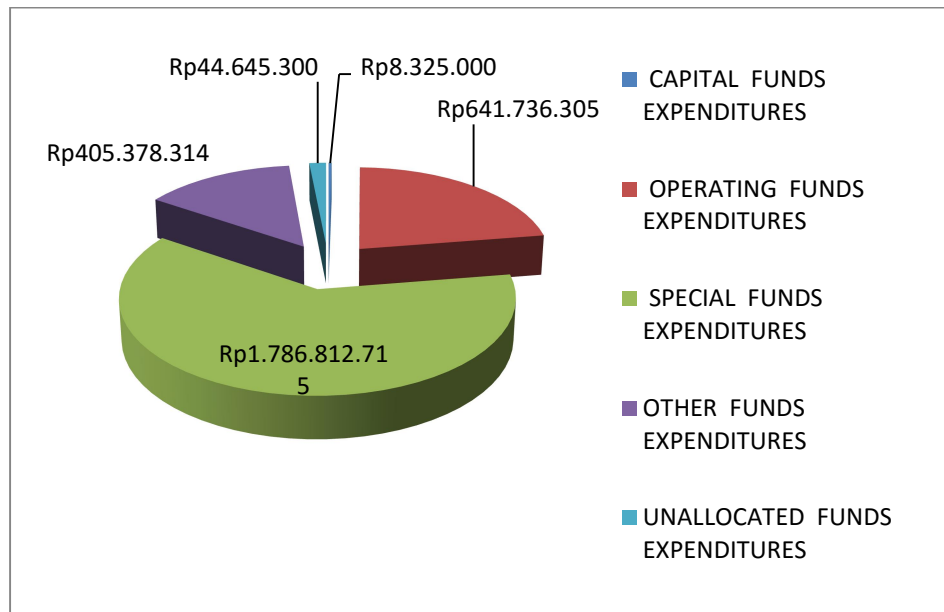


This Google Site media is functioned to manage the learning resources, conducting participant evaluation, sharing activities and also communication between the centre and participant as well as the alumnae.

KRA 3 : Solid Resource Base

Financial Viability

To undertake its programmes and activities during the fiscal year under review, The Centre augmented the funds coming from the Government of Republic of Indonesia. The budget system applied in Indonesia is based on Performance-Based Budgeting and Medium Term Expenditure Framework. Diagram below shows the finance distribution of SEAMEO QITEP in Science activities from July 2011 - June 2012.



Human Resource Management

At present, the Director and the acting Deputy Director for Programme are two professionals employed by the Centre, and they are supported by 14 staff members. The new acting deputy director for programme is Dr. R. Indarjani, while the former, is now holding the position of Deputy Director for Administration. Eka Danti Agustiani is now the Head Division of Partnership, Collaboration and International PR and Marketing and Dewi Ratih Fuji Astuti as the division officer. There are additional staff members as well, namely; Atik Rahmawati and Gena Aghnia Fadhilah, as the staff member of the Training Division, Intan Liswandini as the staff of the Centre secretariate, Asep Supardi and Agus Nugraha as the Janitor.

As an effort in promoting professional development of its staffs, The Centre facilitates various staff development programmes, as it will help to improve the effectiveness and efficiency of the Centre's management. The Centre's staff development programmes in the Fiscal Year under review are as follows:

i) Linking SEAMEO Regional Centre For QITEP In Science With Science Education Expertise In Australia

In line with the vision and mission of the Centre, SEAMEO QITEP in Science finds it necessary to emphasize the development of science learning through inquiry approach. It is hoped that teachers are having more alternative models

on teaching science and able to implement and develop themselves so that the students can improve their science literacy and science process skills.



On December 3-14th, 2011, SEAMEO QITEP in Science was invited by Science by Doing Centre, Australian Academy of Science (AAS) to send three of the staffs, Mr. Kandj, Mr. Reza Setiawan, and Ms. Eka Danti Agustiani, to participate a program themed Linking SEAMEO Regional Centre For QITEP in Science with Science Education Expert in Australia " and hosted by Ms. Amelia Druhan, Director of the National Science By Doing Junior and Secondary School Science Initiative. The purpose was to become familiar with the various programmes and activities of AAS associated with the development of science education as well as have an opportunity to meet with other organizations and professionals involved in science education improvement in Australia such as QUESTACON, CSIRO, Queensland Regional Science Manager, and others.

ii) 2012 the First Training-Workshop on Knowledge Management

On 29 February - 2 March 2012 the First Training-Workshop on Knowledge Management (KM) was held at SEAMEO SEARCA, Los Banos, Laguna, Philippines. It was attended by representatives from almost all SEAMEO Centres and Networks. Prof. Dr. Ismunandar and Ms. Lili Indarti, the representatives of SEAMEO QITEP in Science, took part in the event.

There were four main key persons delivering lectures and facilitating on the practice of Knowledge Management for organizations namely Dr. Serafin Talisayon (the chief expert in KM), Mr. Oliver Serrat (the Head of Knowledge Management Centre in Asian Development Bank), Mr. Winifredo B. Dagli (he instructor at the College of Development Communication in UPLB), and Mr. Garry Jay S. Motemayor from the College of Development Communication (CDC) of UPLB.

The sessions provided all attendees with information of the importance of Knowledge Management (KM) in the Centres or Networks, important centres and network policies on the KM implementation, and hands-on using Google Doc supporting KM implementation.

iii) Chemical Safety and Security Workshop

Sponsored by Sandia Laboratory and US Department of State, the centre sent one of its staff, Ms. Eka Danti Agustiani to attend The Chemical Safety and Security Workshop. This workshop is aimed to establish safety culture in chemical laboratory. It was conducted for 5 days from 12-16 March 2012 at Bandung Institute of Technology, Indonesia.

The workshop contents includes: Introduction to Chemical Management, Process Safety Management/Site Visit, Hazard and Mitigation Control, Principles of Chemical Security, and Emergency Management, Toxicology, Fire Protection, Management of Change.

iv) Environmental Teacher's International Convention 2012 (ETIC 2012)

On 8 - 13 April 2012, Ms. Eneng Susilawati joined the Environmental Teacher's International Convention 2012 (ETIC 2012) held in Malang, East Java. This convention themed environment for sustainable consumption and aimed to Builds on a strong tradition of sharing the latest in EE/ESD theory, policy and practice with the principle of togetherness, tolerance and participation. The program included includes exhibitions, inquiry based field trip, group discussion and social activities.

v) Courses on e-Learning System Design

As an effort to enhance the Centre's ICT system support facility, Ms. Lia Zalilia, staf of ICT and Network Division attended two short courses in Bandung Institute of Technology (ITB). The first course was Developing e-learning System using Moodle from 15-16 November 2011. The course content consisted of installation of Moodle software and its management.

The second course was Developing Instructional Design Learning held on 20 December 2011. The course topics was about how to design e-learning content using various techniques.

vi) International Seminar on ICT Education

The Centre sent one of the staff, Ms. Lia Zalilia, to attend the International Seminar on ICT Education in Yogyakarta, Central Java, Indonesia. The aim was to share the recent ICT development in enhancing education. The conference was held in Yogyakarta University from 14-16 April 2012 consisted of 5 keynote speaker and 36 papers presented on the parallel session.

vii) Workshop on the Planning and Development of Online Training of ICT Integration into Teaching and Learning for Teacher and Teacher Educator

On 24 - 26 May 2012, two of the Centre staff, Ms. Lia Zalilia and Mr. Reza Setiawan participated a workshop titled "Planning and Development Online Training for ICT Integration into Teaching and Learning for Teachers and Lecture" that was held in SEAMEO SEAMOLEC, Jakarta. This workshop was also participated by staff from SEAMEO QITEP in Mathematics, Lectures from Open University, Jakarta State University, and Sampoerna University. The agenda was to develop training materials that will be used in five SEAMEO member countries for the implementation of the Online Training scheduled in September 2012. The training material will consists of "The Role of ICT Integration In Education", "Tools Needed in Developing ICT Integrated

Learning Environment”, and “Skill in Developing ICT Integrated Lesson Plan for Teacher”.

viii) The 3rd Internasional Seminar à La Main à la Pâte

The Centre Director, Prof. Ismunandar, and Head of Partnership and Collaboration Division, MS. Eka Danti Agustiani, were selected to participate in the La Main à la Pâte 3rd International Seminar on Science Education. This seminar took place from 4 - 9 June 2012 at the International Centre for Educational Studies (CIEP) in Sèvres, near Paris and addressed on inquiry-based science education issues, strategies for innovation in educational practices and strategies for generalisation into educational systems. The seminar focused especially on the continuous professional development of science teachers. This meeting was attended by selected 49 trainers and decision-makers of the foreign educational systems from outside of European Union countries, wishing to get acquainted with the methods and the tools developed in France. The objective was to support the participants in the renewal of science education and the implementation of an inquiry-based. Total E & P Indonesie, a French oil and energy company, were partly sponsored the QITEP in Science's delegations to attend the seminar.