ANNUAL REPORT 2018-2019

SEAMEO QITEP IN SCIENCE

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Publisher
SEAMEO QITEP in Science, 2019
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60 Pages 21 x 29,7 cm

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MESSAGE FROM THE DIRECTOR

Director of SEAMEO QITEP in Science

Dr. Indrawati, M.Pd.

Dear shareholders,

With pleasure, I hereby present the Annual Report of SEAMEO QITEP in Science from July 2018 to June 2019. It reports our accomplishments and contribution during the said period as we continued to strive for being the centre of excellence in empowering and enhancing the quality of science teachers and education personnel in Southeast Asia.

In line with our vision and missions, our programmes in this fiscal year have been designed to be relevant with the current issues in education. They consist of annual training courses, workshop, seminars, capacity building activities, and others. Furthermore, the grand theme of our programmes is still STEM education. Collaboration and partnership with relevant institutions and or organizations that emphasize STEM education have been made to strengthen our content quality and dissemination. For instance, we have made collaboration with Office for Climate Education (France) in conducting Regional Workshop and Training on Environmental Education, with NEQMAP UNESCO in conducting NEQMAP Capacity Development Workshop, and with Pakistan Space Science Education Centre (PSSEC) in conducting Training on Earth and Space Science (Mission to Mars).

SEAMEO QITEP in Science has been supported by many parties. Therefore, I would like to give my sincerest gratitude to all parties who have supported and trusted us. I would also like to give my highest appreciation to all Centre staff, the members of our Governing Board, partner institutions, SEAMEO Member Countries, the Ministry of Education and Culture of the Republic of Indonesia, and stakeholders for their support and continued trust.

Chapter 1

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. This executive summary highlights the centre progress in three Key Result Areas (KRAs) including 1) Regional Leadership, 2) Regional Visibility, and 3) Solid Resource Base during 2018 – 2019.

Trainings, workshops and seminars are the main activities of the centre. Until June 2019, all activities conducted since 2009 have been participated by a total of 8084 participants from the Southeast Asia region and beyond. Figure 1 describes the distribution of participants joining the Centre's activities.

Training Course Participants

Distribution from 2009 – June 2019

Figure 1. Training Course Participants Distribution from 2009 – June 2019

Meanwhile, during the 2018–2019 period the Centre conducted three regular training courses, nine in-country trainings, 27 collaboration/customized trainings and hosted 4 seminars/international conferences. Furthermore, the Centre facilitated 2 online training courses in collaboration with SEAMEO Secretariat.

In addition, SEAMEO QITEP in Science has successfully trained 2728 participants comprised of teachers and educational personnel from various schools and institutions in SEAMEO member countries. Chart 1 shows the alumni distributions according to their country of origins for year 2018–2019.

Participants Distribution
from July 2018 – June 2019

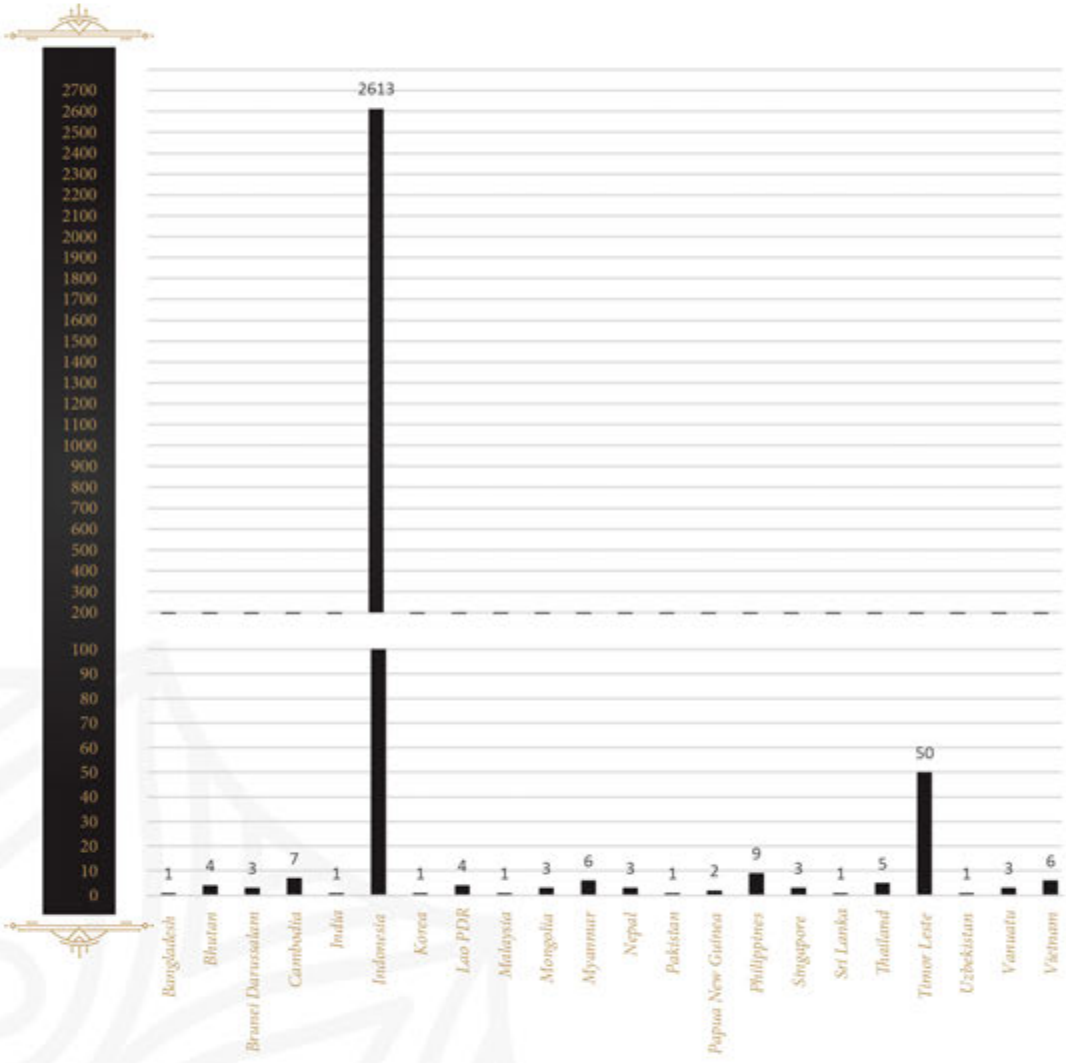


Chart 1. Participants Distribution from July 2018 – June 2019

Training courses and workshop clearly correspond to KRA 1 and KRA 2. However, some of them also correspond to KRA 3 since in some of the training courses and workshops several Centres' staffs joined the activities as participants.

In terms of Regional Visibility, there were various collaborative activities between SEAQIS and regional and international institution such as NEQMAP Capacity Development Workshop: School-Based Classroom, Teacher, and Formative Assesment; invitation as Speaker on The 2019 NOSTE International Research Conference; Seminar-Workshop and Biennial Convention; staffs participation in Guangxi Annual Robotic Competition (GARC) and the ASEAN National Adolescent Robot International Tournament 2019.

In term of Solid Resource Based, to strengthen the institution organizational structure, the Centre's staffs participated in the Centre's staffs participated in number of various staff capacity building activities and those programme have widened the knowledge and skills of the centres' personnel.

In term publication, the centre published several series of bulletin, semi-annually newsletter and one proceedings of an international seminar (KHD Award). The centre also published the proceedings of SEAQIS Research Grant 2018. The proceedings comprises of 30 presented papers from the conference that was taking place in Bandung from 26 – 28 November 2018. Moreover, the centre finalised science learning materials such as unit of STEM learning for elementary, junior high, senior high, and vocational school.

To undertake its programmes and activities during the fiscal year under review, the centre augmented the funds coming from the Government of Indonesia. It consisted of $ 375.980 operating fund, $ 3.824 capital funds, and $ 260.359 special funds.

Finance Distributions
FY 2018-2019
(Updated, 30th June 2019)

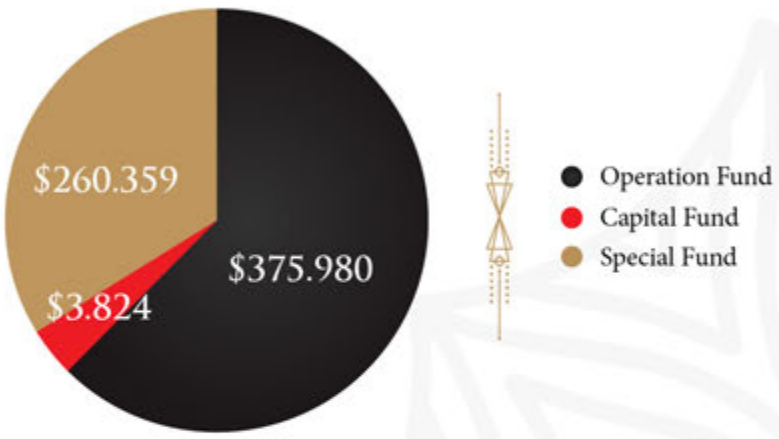


Chart 2. Finance Distributions FY 2018-2019 (Updated, 30st June 2019)

Chapter 2

General Information

Southeast Asian Ministrers of Education Organization (SEAMEO) Regional Centre for Quality Improvement of Teachers and Education Personnel (QITEP in Science).

Board of Directors and staff

SEAMEO Regional Centre for QITEP in Science was established on 13 July 2009 through the approval of the 44th SEAMEO Council Conference in Phuket, Thailand. The establishment of SEAMEO QITEP in Science was the affirmation of the Government of Indonesia, through its Ministry of Education and Culture (MoEC), to actively contribute in science education development in the region.

Vision

To be the centre of exellence in profesional development of teachers and education personnel in science towards sustainable development in Southeast Asia.

Mission

To provide relevant and quality programs in professional development for science teachers and education personnel through capacity building, research and development, resource sharing, and collaboration.

Core Values

Professionalism

Professionalism means that every staff performs their job corresponding to their skills and special abilities and using intellectual-based techniques and procedures. Every staff is required to have high integrity, capabilities, discipline, qualified skills and knowledge to implement the Centre's vision and missions.

Togetherness

All the staff members are part of a big family that has the same vision, mission, and goals. Each staff member should be able to support, cooperate and bring mutual benefit to each other in order to achieve the Centre's vision and mission. The staff members should put as priority the principle of togetherness.

Productivity

All staff are expected to give an optimum work performance through adopting an effective and efficient work system.

Core Values

To realise 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 core values as follows.

Innovativeness

The Centre's staff should possess and develop the ability to predict and respond to the changes, and generate new ideas.

Lifelong learning

Centre's staff should possess the eagerness to improve and enhance their knowledge, skills, and attitude throughout their life.

Goals

a. To develop and implement effective inquiry-based science education training programs and other learning events;
b. To strengthen national and international networking in science education;
c. To conduct research-based innovations and resource-sharing in science education; and;
d. To improve competence and management capabilities of SEAQIS human resources for effective and efficient service delivery

Niche Area

SEAMEO QITEP in Science has decided that Inquiry-Based Science Education (IBSE) development will be the ultimate goal and focus for the Centre's second Five Year Development Plan (FYDP). IBSE shall also be the Centre's niche and thus the Centre's major philosophy to realize its vision and to be the Centre of excellence in professional development of teachers and education personnel in science towards sustainable development in Southeast Asia. Thus, IBSE will become the basic philosophy and major strategy of all training courses and activities to be conducted by SEAMEO QITEP in Science within the scope of professional teacher improvement. The Centre believes that producing quality science teachers in the region will contribute to development and growth in the region and thus contribute in the achievement of ASEAN Community.

Programme Thrusts

In carrying out its mandate and to achieve the goals to become a Centre of excellence in IBSE, the Centre has identified the following three (3) Program Thrusts for its 2nd FYDP:

a. Professional Teacher Development which will look into the total development of teachers in terms of knowledge, skill and attitude. It is considered as a critical part in education development because of its relationship to learning outcome and student achievement. Development of teacher professionalism requires a sustained policy and funding, carried out over time, and should be aligned with standard and assessment that are integrated with teacher goals.

b. Learning Resources Development which will identify best practices and gaps in IBSE with the intention of providing the appropriate learning resources needed for effective teaching and learning. Provision of appropriate learning resources should be integrated, logical and on going experiences, content of prolonged facets of classroom instruction and backed up by the best research evidences.

c. Professional Learning Communities which will focus on enhancing the awareness and understanding of IBSE among education decision makers, education personnel and the general public towards its application and promoting collaboration among them.

All activities of the Centre shall be aligned along these 3 Program Thrusts to achieve its vision, mission, and goals and, at the same time, maximize its resources and potentials. In addition, the Program Thrusts of the Centre shall be considered as pillars in science education development.

Governing Board Members

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 are:

Sarimah Abu Bakar

Specialist Inspector in Science Education
Ministry of Education
BRUNEI DARUSSALAM

Ngor Penglong

Director
Teacher Training Department,
Ministry of Education, Youth and Sport
CAMBODIA

Dr Sediono Abdullah

Former Head
Centre for Development and Empowerment of
Teacher and Education Personnel in Science
INDONESIA

Mr Keth Phanhack

Deputy Director General
Department of the Teacher Training
Ministry of Education and Sport
LAO PDR

Dr Habibah Abdul Rahim

Director
Education Planning and Research Division,
Ministry of Education
MALAYSIA

Dr Ni Ni Than

Professor
Department of Chemistry
MYANMAR

Dr Lorna Dig-Dino

Undersecretary
Curriculum and Instruction,
Department of Education
PHILIPPINES

Lau Chor Yam

Master Teacher (Chemistry)
Standards and Research Branch, Academy of Singapore Teachers
Ministry of Education
REPUBLIC OF SINGAPORE

Prof Sukit Limpijumnong, Ph.D.

President
The Institute for the Promotion of
Teaching Science and Technology
THAILAND

Veronica Correia Moreira

Member
Centre Mathematics and Science
UNESCO, NATCOM
TIMOR LESTE

Prof. Dr. Pham Quang Trung

President
National Academy of Education Management
VIETNAM

Organizational Structure

Organizational Structure

In order to support the Centre's vision, mission and goals, an effective and efficient structure organisation is required. Thus, SEAMEO QITEP in Science will adopt the organisational structure as shown below:

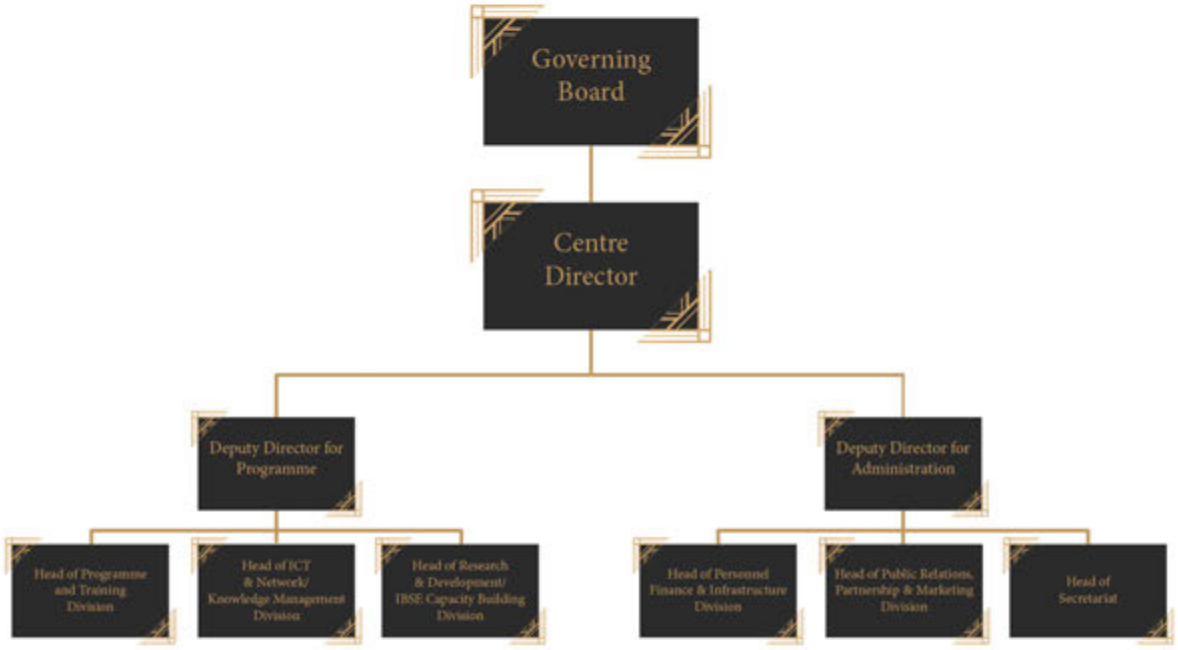


Table 1. Organizational Structure

SEAMEO Regional Centre Governing Board members have contributed effectively to promote regional cooperation and in fulfilling the needs of member states in education, science, and culture. Owning to their experience, expertise, and indepth knowledge in the specialized fields of the SEAMEO Regional Unit on whose Boards they serve, they are, therefore, able to contribute effectively in the planning, implementation, and assessment of programmes and activities of their respective centres and projects in accordance with the board policy decisions set by the Organization's Council of Ministers.

The Centre Director shall oversee the Centre operations. In carrying out the Centre's mandates and programmes and activities, the Centre Director is assisted by the Deputy Director for Programme and Deputy Director for Administration. As part of Centre's administration, the Centre secretariat shall be responsible in performing daily Centre's activities, communication and correspondence with other parties, include assisting the Centre Director, Deputies and Head of Divisions in carrying out their tasks. To ensure the quality of the programs, the Centre's six (6) Divisions shall assist the Centre Director in the planning and implementation and in all other matters pertaining to the activities of the respective Divisions of the Centre. Heads of divisions are assisted by some staff or officers and posibility experts.

Chapter 3

KEY RESULT AREA

Introduction

The highlights of the annual report for FY 2017/2018 will be presented according to three Key Result Areas (KRAs), namely, 1) Regional Leadership, 2) Regional Visibility and 3) Solid Resource Base. The sub-areas under each KRA are as follows:

KRA 1: Regional Leadership

1.1 Research and Development
1.2 Innovation Programme
1.3 Capacity Building
1.4 Recognition and Benchmarking

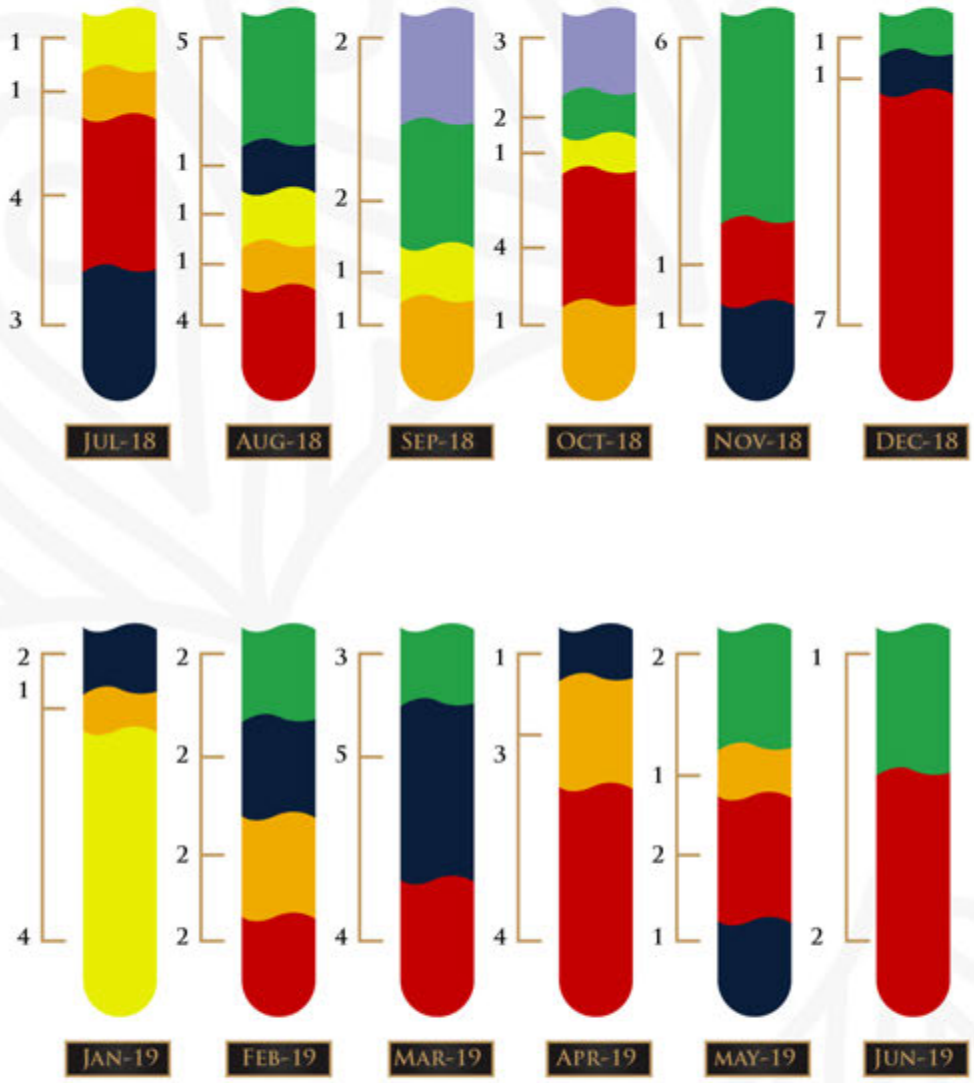
KRA 2: Regional Visibility

2.1 Strengthening linkages with inter-centre, national, regional, and international institutions
2.2 The increase means for stakeholders to access SEAMEO programmes

KRA 3: Solid Resource Base

3.1 Financial Viability
3.2 Management Efficiency
3.3 Human Resource Management

Number of Activities 2018-2019



Centre Activities
in Fiscal Year 2018/2019

No	Activities	Time	Venue	KRA-Sub KRA
Training Course				
1	The Training Course on Environmental Education for Sustainable Development	10-19 July 2018	PPPPTK IPA, Bandung, West Java, Indonesia	KRA 1.3 KRA 2.1 KRA 3.3
2	The Training Course on Earth and Space Science	10-19 July 2018	PPPPTK IPA, Bandung, West Java, Indonesia	
3	The Training Course on Science Classroom Supervision	10-19 July 2018	PPPPTK IPA, Bandung, West Java, Indonesia	
4	Training on ICT-Based Science Education (Computational Thinking)	26-30 Nov 2018	PPPPTK IPA, Bandung, West Java, Indonesia	
5	Training on STELR- STEM Education for Asia Pacific Region	01-05 Oct 2018	Hotel Atlantic City, Bandung, Indonesia	
6	Training on Transforming STEM Education Through Modelling Instruction.	13-16 May 2019	PPPPTK IPA, Bandung, West Java, Indonesia	
Workshops on Curriculum and Material Development				
7	Workshop on Learning Materials Development	18-20 Mar 2019	SEAMEO QITEP in Science, Bandung Indonesia	KRA 1.1 KRA 1.2 KRA 1.3 KRA 2.2
8	Workshop on Development of SEAQIS 10th GBM Working Paper	19-21 Feb 2019	SEAMEO QITEP in Science, Bandung Indonesia	
9	Workshop on Programme Evaluation 2018	24 Dec 2018	SEAMEO QITEP in Science, Bandung Indonesia	
10	Workshop on SEAQIS Research Grants Proposals Evaluation	22-24 Apr 2019	SEAMEO QITEP in Science, Bandung Indonesia	
11	Workshop on Development of STEM Learning Model	3 Jan 2019	SEAMEO QITEP in Science, Bandung Indonesia	
12	Workshop on Programme Development 2019	12-14 Mar 2019	SEAMEO QITEP in Science, Bandung, Indonesia	
13	Workshop on Development of the 3rd FYDP 2020/2021 – 2024/2025	04-06 Mar 2019	SEAMEO QITEP in Science, Bandung, Indonesia	
14	Wokshop on Programme Planning 2019	22-24 Jan 2019	SEAMEO QITEP in Science, Bandung, Indonesia	
15	Workshops on STEM Education Integration in 2013 National Curriculum Implementation for Head of Curriculum (A), Elementary School Principals (B) and Elementary School Supervisor in Bandung City, West Java, Indonesia (C).	11 Aug 2018 (A) 27-28 Mar 2019 (B) 21-22 Mar 2019 (C)	SEAMEO QITEP in Science, Bandung, Indonesia	
16	Workshops on SEAQIS 10-year book arrangement	12-14 Feb 2019	SEAMEO QITEP in Science, Bandung, Indonesia	
Staff Capacity Building				
17	Evaluation Meeting on Training for teachers and education personnel of Early Childhood Education and Community Education	06 July 2018	Jakarta, Indonesia	KRA 1.3 KRA 1.4 KRA 3.3
18	Programme Development of Centre for Early Childhood Care Education and Parenting	11 July 2018	Bandung, West Java, Indonesia	

No	Activities	Time	Venue	KRA-Sub KRA
19	Training on Regression Analysis by STATA	July 2018	Padjajaran University, West Java, Indonesia	
20	Focus Group Discussion: Teacher Performance in Perspective of Achieving National Examination Results, PISA, and Student Character Building, Yogyakarta, Indonesia.	24-26 Aug 2018	Cavinton Hotel, Yogyakarta, Indonesia	
21	Fusion of Civilisations Under One-Belt One Road Curriculum Group Meeting, Museum Nasional Thailand, Bangkok.	24-26 Aug 2018	Bangkok, Thailand	
22	Benchmarking on *Climate Change Education* in SEAMEO BIOTROP, Bogor, Indonesia.	26-31 Aug 2018	SEAMEO BIOTROP, West Java, Indonesia	
23	Training Workshop for IBSE Master Trainers on Climate Change Education, Kuala Kumpur, Malaysia.	27-30 Aug 2018	Kuala Lumpur, Malaysia	
24	Group Discussions on National STEM Academic Script	06 and 07 Nov 2018	Ministry of Education and Culture, Jakarta, Indonesia.	
25	Workshop on Developing Agri-based STEM Education Materials in Indonesia	3-5 Dec 2018	SEAMEO BIOTROP, Indonesia.	
26	Workshop on Developing Science Materials for early childhood education.	3-5 Dec 2018	Banyuwangi, East Java, Indonesia	
27	Workshop on Little Scientist Developing Programme, Bandung, West Java, Indonesia.	05-08 Dec 2018	Bandung, West Java, Indonesia	
28	Piloting Project on Early Childhood Education Module.	10-12 Dec 2018	East Lombok, West Nusa Tenggara, Indonesia.	
29	Workshop and Group Discussion on Science, Technology, Engineering, and Mathematics (STEM) and Industrial Revolution 4.0	12-14 Dec 2018	Ministry of Education and Culture Jakarta, Indonesia	
30	Group Disscusion on STEM Education Concept for Indonesian	26 -28 Dec 2018	Ministry of Education and Culture Yogyakarta, Indonesia	
31	Discussion on *ASEAN Plus Three Plan of Education* 2018-2025.	17 Jan 2019	Ministry of Education and Culture Jakarta, Indonesia	
32	Workshop on Procurement Practices and Management	27-29 Mar 2019	Bogor, West Java, Indonesia	
33	Workshop on Land Change and Its Potential Research for Indonesian Teacher Education, Bogor, Indonesia.	15-16 Oct 2018	Bogor, West Java, Indonesia	
34	Workshop on Strengthening Corporate Communication.	8-9 Nov 2018	SEAMEO BIOTROP, Bogor, Indonesia.	
35	SEA-BES Phase 2 Regional Workshop	13-16 Nov 2018	SEAMEO RECSAM, Penang,	

No	Activities	Time	Venue	KRA-Sub KRA
	on STEM Curriculum Planning		Malaysia.	
36	Benchmarking on STEM Education in Thailand.	27-29 Nov 2018	924 Sukhumvit Road, Khlong Toei, Bangkok, Thailand.	
37	NEQMAP's 6th Annual Meeting, Bangkok, Thailand.	12-15 Dec 2018	Bangkok, Thailand	
38	Training on Goods and Services Procurement.	15 - 16 May 2019	Jakarta, Indonesia.	
39	Best Practices for ICT Utilization in School Learning and Management at SMPN 1 Ciasem, Subang, West Java.	21 Jan 2019	SMPN 1 Ciasem, Subang, West Java, Indonesia	
40	Workshop on Sharing Best Practice in Improving the Quality of Teachers and Education Personnel in SEA Region.	10-14 Mar 2019	Korea National University of Education	
41	Participated in Workshop on School-Based Nutrition Promotion in the Southeast Asia Region (SEA-SBNP).	14-15 Mar 2019	Jakarta, Indonesia	
42	Workshop on Enhancing Critical and Computational Thinking trough Design-based Approach in STEM Context: Challenge to Transform STEM Education to Artificial Intelligent (AI)-Generation Education.	25-29 Mar 2019	SEAMEO RECSAM, Penang, Malaysia	
43	Workshop on Sharing Practices in Implementing Southeast Asia Teacher Competency Framework.	18-19 Apr 2019	SEAMEO RETRAC, Ho Chi Minh City, Vietnam	
44	Seminar and Training on LKPP e-catalogue utilization.	23 Apr 2019	Tanggerang, Banten, Indonesia	
45	Observation of National Disaster Preparedness Day by The National Agency for Disaster Countermeasure of Indonesia.	26 Apr 2019	Bandung, West Java, Indonesia	
46	Training on Diplomatic Protocol and Etiquette	29 Apr - 1 May 2019	Jakarta, Indonesia	
47	GARC and the ASEAN National Adolescent Robot International Tournament 2019.	24 - 27 May 2019	Beijing, China	
48	Internship Programme for SEAQIS Staff in SEAMEO Secretariat, Bangkok Thailand	01 Feb - 29 Mar 2019	SEAMEO Secretariat, Bangkok Thailand	
49	Knowledge Sharing Day	July – now	SEAMEO QITEP in Science, Bandung, Indonesia	
Collaboration and Networking				
50	In-Country Science Subject Knowledge Enrichment in for Elementary School Teachers in Wonosobo District (Batch I-III)	18-20 Feb 2019 21-23 Feb 2019 21-23 March 2019	SD Ma'arif Tieng, Wonosobo, Central Java	KRA 1.1 KRA 1.3 KRA 1.4 KRA 2.1 KRA 2.2 KRA 3.3
51	In-Country training on Science Subject Knowledge Enrichment in for Elementary School Teachers in Banjarnegara District (Batch IV-V)	25-27 Mar 2019 28-30 Mar 2019	SD Sumberrejo I, Banjarnegara, Central Java	

No	Activities	Time	Venue	KRA-Sub KRA
52	Training on Strengthening Candidates of STEM Master Trainer Teacher in Bandung (Batch I-II)	07-10 Aug 2018 (batch 1) 10 Sept 2018 (batch 2)	SEAMEO QITEP in Science, Bandung, Indonesia (batch 1); SMPN 5 Bandung, Indonesia.	
53	Training on STEM Education Integration in 2013 National Curriculum Implementation for:			
	a. Elementary School Teacher in Bandung Regency, West Java;	18,20,27 Oct 2018	SD Widuri, Baleendah, West Java, Indonesia	
	b. Junior High School Teacher in Jakarta (Batch I, II, V), Yogyakarta (Batch III), and Makassar (Batch IV);	I,II: 6-10 Aug 2018 III: 27-31 Aug 2018 IV: 25-29 Sept 2018 V: 01-05 Oct 2018	I,II, V: Hariston Hotel, Jakarta, Indonesia; III: Sahid Hotel, Yogyakarta, Indonesia; IV: Dalton Hotel, Makassar, Indonesia;	
	c. Science and Mathematics Teacher in Bandung	19-20 Oct2018	Hotel Amarosa, Bandung, Indonesia.	
	d. Junior High School Teacher in Solok City, West Sumatera;	24 s.d. 27 Oct 2018	SMPN 5 Kota Solok, West Sumatera, Indonesia.	
	e. Elementary School Teachers in Sleman Regency, DI Yogyakarta	2-4 May 2019	SDN Deresan, Sleman, Yogyakarta, Indonesia	
	f. Facilitator of Virtual Coordinator Training (VCT) in West Java.	20 - 23 May 2019	Bandung, West Java, Indonesia.	
	g. School Principals and Supervisor in Bandung City, West Java.	6 Aug 2018	PPPPTK IPA, Bandung, West Java, Indonesia.	
	h. Vocational School in Cihideung Ilir (SEAMEO STAR-Village), Bogor, West Java.	13, 27 Oct 2018	SMK Geo Informatika, Cihideung Ilir, West Java, Indonesia.	
54	Training for Trainer on STEM-STELR Education in Bontang, East Kalimantan.	9-12 Oct 2018	Sintuk Hotel, Bontang, East Kalimantan, Indonesia.	
55	In-Country Training on Inquiry Based Science Education (IBSE) in Timor Leste.	16-20 Dec 2018	Infordepe, Dili, Timor Leste.	
56	Training on STEM Education based on Environmental Science for Sustainable Development (EESD) for Junior High School Teacher.	11-16 Nov 2018	Demak Regency, Central Java.	
57	Training for Heads of School Science Laboratory, Computer Laboratory, and language laboratory; Customised programme from Indonesian Ministry of Religious Affairs.	23-27 Nov 2018	SEAMEO QITEP in Science, Bandung, Indonesia	
58	In-Service 2: Training on STEM Education Integration in 2013 National Curriculum Implementation for Elementary School Teacher, Secondary School Teacher, and Senior High School Teacher in collaboration with Centre for Development and Empowerment of Teachers and Education Personnel (CDETEP) in	Aug– Nov 2018	SEAMEO QITEP in Science, Bandung, Indonesia	

No	Activities	Time	Venue	KRA-Sub KRA
	Science, Indonesia.			
59	NEQMAP Capacity Development Training Workshop: School-Based, Classroom, Teacher and Formative Assessment; Assessment for Learning.	23-28 June 2019	Grandia Hotel, Bandung, Indonesia.	
Seminar for Research and Development				
60	The International Conference on Science Education and Teacher Professional Development.	16-20 Sept 2018	Bali, Indonesia	
61	The 2nd Ki Hajar Dewantara Award, Bali, Indonesia.	16-20 Sept 2018	Bali, Indonesia	
62	Invited to be the Speaker on Mini Seminar: Princess Maha Chakri Awardees, Thailand Embassy for Indonesia, Jakarta.	07 Aug 2018	Thailand's embassy for Indonesia, Jakarta, Indonesia.	
63	Facilitated SEAMEO Creative Camp Online Workshops on Waste Recycling and Game Development.	3 April – 22 May 2019	SEAMEO QITEP in Science, Bandung, Indonesia	
64	Facilitated Online Course on Adopting 21st Century Curriculum on Science and Mathematics.	July-Aug 2018	SEAMEO QITEP in Science, Bandung, Indonesia	
65	Participated in the 3rd International Conference on GCED: Platform on Pedagogy and Practice.	4-6 Sept 2018	Lotte Hotel Seoul, Seoul, Republic of Korea	
66	Seminar on SEAQIS Research Grant 2018, Bandung, Indonesia.	26-28 Nov 2018	Verona Palace Bandung, Indonesia	KRA 1.3 KRA 1.4 KRA 2.1 KRA 2.2
67	Dissemination of STEM Learning Development 2018, Bandung, Indonesia.	29 Nove 2018	SEAMEO QITEP in Science, Bandung, Indonesia	
68	Seminar Computational Thinking on Science Education, Bandung, Indonesia.	29 Nov 2018	SEAMEO QITEP in Science, Bandung, Indonesia	
69	Invited to be the Speaker on SEAMEO Centres Policy Research Network (CPRN) Conference.	29 Jan - 01 Feb 2019	Bangkok, Thailand	
70	Invited to be the Speaker on SEAMEO-University of Tsukuba Symposium VII.	09-11 Feb 2019	Tsukuba University, Japan	
71	Invited to be the Speaker on the National Dialogue on Women in Science.	10-12 Feb 2019	LCWU Campus, Lahore, Pakistan.	
72	SEAQIS Focus Group Discussion: Integration of Disaster Risk Reduction and Mitigation in Schools.	10 Apr 2019	SEAMEO QITEP in Science, Bandung, Indonesia	
73	National Seminar on STEM Education and Industrial Revolution 4.0.	27 Apr 2019	Indonesian Cultural Centre, Timor Leste	
74	Invited to be the Speaker on the 2019 NOSTE International Research Conference, Seminar-Workshop and Biennial Convention.	16-19 May 2019	Leyte Normal University, Tacloban City, Philippines	
Other				
75	Centre Directors Meeting	16 - 20 Jul 2018	Arnoma Grand Bangkok Hotel, Bangkok, Thailand	KRA 1.4 KRA 2.1
76	Participated in 7th Annual Forum for High Officials of Basic Education	15-16 Aug 2018	Vansana Riverside Hotel, Vientiane, Lao PDR.	

No	Activities	Time	Venue	KRA-Sub KRA
77	9th Governing Board Meeting	19-23 Sept 2018	Bintang Bali Resort, Kuta, Bali, Indonesia	
78	The 41st SEAMEO High Officials Meeting (SEAMEO HOM)	27-30 Nov 2018	Amari Watergate Hotel, Bangkok, Thailand.	

SEAMEO ACTIVITIES
FISCAL YEAR 2018 – 2019

MEETINGS
INTERNATIONAL
CONFERENCES AND
KI HAJAR DEWANTARA AWARDS

The 9th SEAQIS Governing Board Meeting

Cultural Performance before Meeting Start

Governing Board Meeting in a Glance

The Governing Board (GB) Meeting is an annual meeting conducted by SEAMEO QITEP in Science to review the previous and future activities for further submission to higher meetings including the Centre Director Meeting, High Official Meeting and SEAMEO Council Conference. The meeting is also aimed at discussing various internal matters to seek their possible solutions or improvement. and the 9th Governing Board Meeting was successfully convened from 19 to 23 September 2018, at Bintang Bali Resort, Kuta, Bali. Ten out of eleven GB Members and representatives attended the meeting. Dr Prasert Tepanart, Deputy Director for Administration and Communication of SEAME Secretariat also attended the meeting. In the GB Meeting, the Centre submitted 14 working papers to be discussed during the meeting; one working paper for acknowledgement, eight working papers for approval, and five working papers of information.

The meeting approved the Centre's proposed budget and upcoming programmes which mostly focuses on preparing students to face challenges in the era of Industrial Revolution 4.0.

SEAQIS Director
and Deputy Director
with Governing Board
Member and Observer

Cultural Visit
to Uluwatu, Bali

Prof. Dr. Muhadjir Effendi M.A.P, President of SEAMEO Council gives a Trophy to KHD Awardee

Plenary Session Lead by SEAQIS Deputy Director of Administration, Lily Indarti M.Hum

The International Conference on Science Education and Teacher Professional Development, and the 2nd Ki Hajar Dewantara Award

Over the years, SEAQIS constantly makes its effort to improve science teachers to conduct research and develop innovative students' learning activities. One of the Centre's effort in this matter is the Ki Hajar Dewantara (KHD) Award as an appreciation of the Centre towards the dedication of science teachers in Southeast Asia.

In 2018, the Centre conducted the 2nd KHD Award in Denpasar, Bali, from 17 to 19 September 2018 under the theme of "Innovation in Teaching, Learning, and Student Engagement through the Implementation of Science, Technology, Engineering, and Mathematics (STEM) Education." The award was conferred during the International Conference on Science Education and Teacher Professional Development. The conference was attended by more than 100 teachers from the region including the Ki Hajar Dewantara (KHD) Award awardees.

The invited keynote speakers were Prof Lee Hew-Chan of Korea National University of Education (KNUE), Prof Satryo Soemantri Brodjonegoro of Indonesia Academy of Sciences, and Ms Anti Rismayanti of SEAMES, highlighting the significances of STEM education that could accommodate the 21st century skills and character-building education.

The plenary session followed the keynote session. The plenary session, which was divided into two sessions, presented four speakers sharing their best-practices in implementing STEM in their respective countries. The speakers were Mr Lau Chor Yam, SEAQIS' Governing Board (GB) member of Singapore, Dr Habibah Abdul Rahim, SEAQIS' GB Member of Malaysia, Ms Lee Saw Im, the first place winner the 1st KHD Award, and Mr Herwin Hamid, the winner of Princess Mahacakri Award of Indonesia in 2016. The second day of the conference was the conduct of the 2nd KHD Award, an initiative by the Centre to honour and appreciate science teachers with high motivation and innovation in the field. The seven nominees from seven SEAMEO member countries presented their papers during this session. The Centre appointed three independent judges for the event consisting of Prof Lew Hee-chan of Korea National University of Education, Dr Gatot Hari Priowirjanto of SEAMES, and Ms Dini Adiba Septanti, the representative of the Ministry of Education and Culture of the Republic of Indonesia.

The tight selection process by the board of jurors resulted three presenters as the winners of the 2nd KHD Award. The first place was taken by Mr Koh Chee Kiang from Singapore, the second place was taken Mr Bryant C Acar from Philippines, and Ms Dini Siti Anggraeni from Indonesia took the third place. The Award was presented by HE Prof Muhadjir Effendi, the Ministry of Education and Culture, the Republic of Indonesia.

Prof. Dr. Muhadjir Effendi M.A.P, President of SEAMEO Council gives a Trophy to KHD Awardee

Coordination Meeting of Grand Design, STEM Implementation Strategy and Digital District Settlement in West Java Province

In the beginning of 2019, SEAMEO QITEP in Science organized The Coordination Meeting of Grand Design, STEM Implementation Strategy and Digital District Settlement in West Java Province. This meeting was a follow up event from STEM implementation in 2013 Curriculum programmes which conducted in 2018. Conducted on Thursday, 3 January 2019, the meeting was officially opened by the Governor of West Java Province, Mr H M Ridwan Kamil, ST, MUD. In the ocassion, also delivered speech about the West Java programme to prepare tech-based sub-district and village in the Province. Using the digital technology, it was expected that the local community-based enterprise in the sub-district/village can be facilitated to expand their market. This Coordination Meeting successfully formulated the grand design of STEM implementation in all level of education, from elementary to senior secondary/vocational school level, especially in West Java Province. Through this Coordination Meeting, the participants, consisted of school communities, policy makers, and also education practitioners formulated references related with STEM implementation in West Java and could resolve various issues and challenges they werere facing.

Ridwan Kamil
Governor West Java

West Java Governor, Ridwan Kamil
Gives Speech and Introduction of Programme

Dr. Gatot Hari P, SEAMEO Coordinator Indonesia
and All Recources Person and Participants of the Meeting

Regular Training

SEAQIS Training Course on Science Classroom Supervision 2018

SEAQIS successfully convened the Training Course on Science Classroom Supervision (SCS) intended for school principals and supervisors. The training was conducted from 10 to 19 July 2018 at the Atlantic City Hotel Bandung. It was participated by 29 participants from Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Myanmar, Philippines, Thailand and Timor Leste.

Some of the training's content were: "Quality Assurance through School Self-Evaluation". "Science Education in 21st Century", "Leadership for 21st Century" "School Supervision Strategy", "Continuous Professional Development" and introducing STEM Learning. Not only a lecture in the classroom, At the eighth day of the training, the participants joined a field trip to Darul Hikam International School located in Lembang, Bandung to implement supervision instruments they made. Darul Hikam International School was chosen as the destination for the school visit because they implemented Cambridge and Indonesian National curriculum.

Participants of Training Courses on Science Classroom Supervision with Experts and Academic Coordinator

Participants of Training Courses on Science Classroom Supervision in Saung Angklung Udjo

Training Course on Environmental Education for Sustainable Development 2018

SEAQIS held the annual Environmental Education for Sustainable Development (EESD) training. It was held for 9 days and were participated by 30 elementary school teachers, 23 teachers from Indonesia and 7 teachers from other SEAMEO Member Countries. In the training, SEAQIS implemented 6 different teaching methods, which were; lecture, presentation, panel discussion, problem–solving activity, and field visit. The location of the field visit was Wikrama Vocational School in Bogor, the winner of Indonesia's Green Awards, in this session, the participants learned about rainwater reservation and hydroponic plants. The participants were also given the time to present their action plans which comprised of planning, application, and evaluation of sustainable environment development in their workplace.

Deputy Director for Administration Mrs. Lili Indarti, presented certificate to participant from Vietnam, Ms. Nguyen Thao Huong

EESD Participants' Visit to Wikrama Vocational School, Bogor

Training Course on Earth and Space Science 2018

The Training Course on Earth and Space Science was successfully held from 10 to19 July 2018. The training was aimed to develop the teacher's content comprehension and supporting classroom activities development related to Earth and Space Science. The training course was attended by 30 participants from several Southeast Asian Countries.

The participants of the training learned about geology, meteorology, and other materials regarding earth and space science. Other than those materials, they also explored many things related to earth and space science, such as disaster mitigation, earth and space phenomenon observation and learnt education plan to implement in their respective classes.

Not only learning in a classroom, the participants also had field studies by visiting Geology Museum, Bosscha observatory, Indonesia Education University (UPI), and Indonesia Meteorology and Geophysics Agency (BMKG). Overall, the Earth and Space Science training went well. Each participant has committed to apply and disseminate the knowledge they got from this training to their peers and colleagues back in their hometown.

(1) Participants Visit to Boscha Observatory,
(2) Participants' Sun Observation in Berau of Meteorology, Climate and Geophysic West Java

CollAboration &
Customize Training

Training on STEM Implementation in 2013 Curriculum (Phase 1 and 2), a collaboration between Directorate of Secondary School Development, SEAQIS and SEAQIM

In order to improve the quality of learning process of Mathematics and Natural Sciences in Junior High to train students' 21st century skills, the Directorate of Secondary School Development, Ministry of Education and Culture of the Republic of Indonesia held the Training on STEM Implementation in 2013 Curriculum from 6 to 10 August 2018 at the Hariston Hotel North Jakarta for phase 1 and 27-31 August 2018 at Sahid Hotel Yogyakarta for phase 2. In collaboration with SEAQIS and SEAQIM, this training was attended by 250 Mathematics and Science teachers from 125 representative schools in DKI Jakarta, West Java, Bangka Belitung, Lampung, Banten, Central Java, East Java, and DI Yogyakarta.

In this training, the participants were given information related to STEM learning and the strategy to implement it in the 2013 Curriculum. The training became interesting and fun with the hands-on activities of STEM-based science and mathematics learning. These trainings were the two of 4 phases of trainings conducted by the Directorate of Secondary School Development. Following this training, the next phases were held in Makassar with participants from region 3 from 25 to 29 September 2018 and in Jakarta from 1 to 5 October 2018 for regional 4.

(1) Participants of Training on STEM Implementation in 2013 Phase 1 – Jakarta
(2) Hands – on Activity 3: Preparing electrical scheme for energy efficient house

Monitoring on the Job Learning, Training on STEM Implementation in 2013 Curriculum Secondary School in Tasikmalaya Regency

Continuing the activity of In-Service Training 1 (in 1) Implementation of STEM in 2013 Curriculum, PPPTK IPA in collaboration with SEAQIS conducted the monitoring on the Job Learning implementation of STEM in each school of in 1 Training participants. This monitoring activity was aimed to find out the process of implementing STEM in the classroom. The teachers of the training participants applied the learning scenarios contained in the STEM Unit that had been developed by the PPPPTK IPA and SEAQIS in their respective classes. There are 20 cities and 30 schools visited by SEAQIS facilitator team during September to November 2018.

Based on the observations, the implementation of STEM learning was very interesting for students for there were a lot of hands on activities to produce a product. However, there were some obstacles experienced by the teachers such as short teaching and learning time so that the project was not completed in time. The findings obtained by the Team in the implementation of STEM had become an input for the development of the STEM unit.

(1) Students and Teachers Collaborate in STEM Learning Process, (2) Students' Product Related to Engineering Design Process in STEM

Training on STEM Implementation in 2013 Curriculum for elementary school teachers in Bogor Regency, a collaboration between SEAQIS and Bogor Regency Education Office

In order to improve the competence of elementary teachers in Bogor Regency, the Bogor Regency Education Office in collaboration with SEAQIS held a Training on STEM Implementation in 2013 Curriculum. This training was a follow-up activity of the HOTS Item Test Preparation Training for elementary teachers. The training was held at Rizen Hotel, Cisarua, Puncak, Bogor Regency and attended by 400 elementary teachers from 40 sub-districts in Bogor Regency which were divided into 2 batches. Batch 1 was from 3 to 5 September 2018 and batch 2 was from 6 to 8 September 2018.

In this Training, the participants were introduced to STEM Approach and how it should be implemented in the 2013 Indonesian Curriculum. the participants were given information related to STEM, Philosophy and benefits in training 21st century students' skills. In addition, the participants also carried out some hands-on activities to get an overview of the application of STEM approach in the classroom.

(1) Mr Reza Setiawan Gave a Brief Introduction about SEAQIS
(2) Participants' Activities, Making a Parachute using a Daily Use Materials

STEM and EESD-Based Science Learning: Mangrove Utilization as a Learning Resource Demak 2018

The effort to conserve mangrove can be initiated from schools. School society is expected to find out the significances of mangrove then support the mangrove conservation programme. With that in mind, SEAMEO QITEP in Science conducted a training in the coastal area to introduce the society to mangrove conservation as early as possible. The training was conducted from 12 to 16 November 2018 in Demak Regency, Central Java, entitled STEM and EESD-Based Science Learning: Mangrove Utilization as a Learning Resource. The training was aimed at improving science teachers' awareness towards mangrove conservation. Besides, the training was intended to introduce the science teachers to the impact of climate change, and STEM-based science learning.

During the training, the participants discussed the impact of climate change to the ecosystem of coastal area, ethnobotanic and mangrove conservation and other topics related to STEM Education. The participants also visited SDN 1 Bedono as a part of field study to learn about mangrove directly from its ecosystem. At the end of the training, the participants were required to arrange a follow-up programme for disseminating what they have acquired during the training.

STELR-STEM Training for Teachers and Education Personnel of Asia – Pacific Region

In 2018, SEAQIS established several collaborations with relevant institutions, and one of them is the Australian Academy of Science and Engineering (ATSE). Seeing the positives responses and the success of the previous year's training, SEAQIS continued to retain the scope of the training to be participated by the citizens of SEAMEO Member Countries and also teachers and education personnel from Asia Pacific by conducting the STELR-STEM Training for Teachers and Education Personnel of Asia – Pacific Region.

The training was conducted from 30 September to 6 October 2018 at Atlantic City Hotel Bandung. Attended by 40 representatives from eight countries. During the training, the participants were introduced to various activities concerning STEM education and also STELR activities, such as Wind and Solar Energy activities, Solar STEM, Climate Change and Ocean, Water in 21st Century, and Sustainable Housing and Sustainability. Besides, they also learned about education theory, and at the second day, they were introduced to Renewable Energy Application in Indonesia.

(1) Mr. Peter Petland from ATSE gave a Token of Appreciation to Dr. Indarwati, Director of SEAQIS
(2) Participants' Speech on The Closing Ceremony

SEAQIS - Timor Leste Collaboration In-Country Training on Inquiry Based Science Education

SEAMEO QITEP in Science (SEAQIS) collaborated with Ministry of Education, Youth, and Sports of Timor Leste organised In-Country Training on Inquiry Based Science Education (IBSE) at Infordepe, Dili, Timor Leste, from 17 to 20 December 2018. The training was attended by 48 high school teachers representing 12 districts in Timor Leste, consisting of physics, chemistry, biology and geology teachers from each district.

The purpose of this training was to equip teachers with the essence of science and science education, science Process skills, Inquiry-Based Science Education, science kits design, and development of IBSE lesson plan. Based on the participants' testimonials, the training was considered to be very useful to improve their pedagogy competence and the quality of science learning in the classroom.

(1) Dr. Indrawati Gave an Opening Speech Before Training Started, (2) Mr. Dian Purnama Led a Hands On Activities related to STEM in Physic

Training on Computer Science Education: Integrating Computational Thinking to Science Learning

Participants with SEAQIS Board of Director and Training's Resource Person

To survive in this global era, people in the region should develop and produce innovations in many aspects especially related on computational thinking and skills. Integrating computational thinking to science learning in school is one way to achieve it. Based on that, SEAQIS conducted "Training on Computer Science Education: Integrating Computational Thinking to Science Learning" from 26 to 30 November 2018 at PPPPTK IPA Bandung. The training was attended by 40 teachers from West Java, DKI Jakarta, and Banten regions which are selected by SEAQIS. The training was started with hands-on activity by using scratch, a program used to create simple animation and simple science activity "how to divide water into three layers". It was guided by Mr Tatsumi Sumi a teacher from Tsukuba University affiliated school in Japan. At the third day, Mr Do Cao Nguyen from clipper Indochine presented materials about computational thinking and how the advancement of technology can also improve our ways to learn science.


Participants Hands On Activity

Training on Science Content Knowledge Mastery for Primary School Teacher

To improve the competence of primary school teachers in terms of science concept, knowledge and content mastery, SEAMEO QITEP in Science, in collaboration with Indonesian Overseas Alumni (IOA), conducted Science Content Knowledge Mastery for Primary School Teacher in Kejajar, Wonosobo Regency from 18 to 23 Februari 2019, taking place at SD Ma'arif Tieng. The participants of the training were 145 primary school teachers divided into two batches. The first batch was conducted from 18 to 20 February followed by the second batch started from 21 to 23 February.

The training employed a 32-training hour pattern where the participants learned about Electrical Circuits, Energy, Animal and Human Physiology and Anatomy, and Plant Structure. The training was smooth and lively because the teachers did many interesting experiments which were expected to be passed on to the students. Some teachers said that this training was very useful and very different from the kind of training they had participated in. They hoped to continue to be involved in the following trainings.

Training Participants Batch II with Physic Facilitator from SEAQIS

Participants Conducted a Biology Experiment about Photosyntesis

Training on STEM Integration in Curriculum 2013 Implementation for Sleman Regency Elementary School Teachers

From Thursday to Saturday 2 to 4 May 2019, SEAQIS cooperated with the Sleman Regency Education Office, which was initiated by the Teacher Working Group IV Deresan, held the Training on STEM Integration in Curriculum 2013 Implementation for Sleman Regency Elementary School Teachers. The training was attended by 100 teachers as participants from Sleman Regency and its surroundings. The materials were consisted of 21st Century Education, STEM Learning, STEM Learning Characteristics, STEM Analysis in Curriculum 2013, and STEM Learning Implementation. In each material, the participants received a presentation from the facilitator followed by group activities to work on the project or fill in the Worksheet.

SEAQIS Facilitators and Local Committee Posed after the Training

All the participants followed the training enthusiastically, especially when the group activities like projects execution, product making, and product testing. The participants were expected to develop the STEM Learning Lesson Plan, and implement it in their respective schools, to prepare students to attain 21st century skills and be ready to face global competition.

NEQMAP Workshop:
Assessment For Learning In Asia-Pacific

SEAMEO QITEP in Science in collaboration with UNESCO Bangkok, as Secretariat of Network on Education Quality Monitoring in the Asia-Pacific (NEQMAP), and Australia Council for Educational Research (ACER) conducted a workshop entitled "NEQMAP Capacity Development Workshop: School-Based, Classroom, Teacher and Formative Assessment; Assessment for Learning." The workshop was held at Grandia Hotel Bandung, West Java, Indonesia from 24 to 27 June 2019. This four-day workshop was attended by 40 participants from Asia Pacific countries that consisted of policy makers, ministry and school administrators, trainer of teacher and researchers.

Throughout the workshop, the participants were expected to develop/consolidate their knowledge on concepts related to school-based, classroom and formative assessments, Procedures/practices for these assessments, as well as curriculum and pedagogy, and Policy implications for curriculum, pedagogy and assessments.

RESEARCH AND DEVELOPMENT

SEAQIS' Research

The vision of SEAMEO QITEP in Science is to be the Centre of professional excellence in the area of science teaching for teachers and education personnel within the framework of sustainable development. To conceptualise its vision, the Centre conducts innovation and creative programmes including the research and development section.

Taking into account the global education trend issues and also various forum that have been participated by center, in the Fiscal Year 2018, the center formulated the research-based innovation under the theme of **STEM Approach in Science Learning toward Industrial Revolution 4.0.**

The theme of the Centre's Research that have been conducted during July 2018 to June 2019 period was research on STEM Education that was related to the development of higher order thinking skill and science inquiry skill of student. Each research activity produced a research paper that was published and disseminate in various education forums, conferences, and seminars. The followings are list of research conducted by the Centre.

Report on Research Studies of SEAMEO QITEP in Science in Fiscal Year 2018/2019

No	Title	Author	Name of Conference or Seminar	Place and Date of Conference or Seminar	Scope
1	Gender on STEM: Persepsi Siswa SMP-SMA terhadap STEM dan Karir STEM. (*Gender on STEM: Perception of Junior and High School Students on STEM and STEM Carrier*)	Muhammad Haidar Helmi	Seminar Penelitian Bidang IPA	SEAQIS, Bandung, 26-28 November 2018	National
2	Profil Engineering Design Process dalam Mengembangkan Kecakapan Abad 21 (*Profil of Engineering Design Proses in Developing 21st Century Skills*)	Lukman Nulhakim	Seminar Penelitian Bidang IPA	SEAQIS, Bandung, 26-28 November 2018	National
3	Analisis Persepsi Guru IPA terhadap Pembelajaran Berbasis STEM (*Analysis of Science Teacher Perception on STEM-based Learning*)	Septian Karyana	Seminar Penelitian Bidang IPA	SEAQIS, Bandung, 26-28 November 2018	National

4	A Study of Levels of Inquiry (LOI) Learning Model in Grade 6th	Lukman Nulhakim	International Conference 2019s "Science Education Towards 21st Century Skill and Industrial Revolution 4.0"	P4TK IPA, Bandung, 8-10 May 2019	International
5	Profil Sikap Guru Kimia terhadap Pembelajaran STEM (*Attitude Profil of Chemistry Teacher on STEM Learning*)	Septian Karyana	International Conference 2019s "Science Education Towards 21st Century Skill and Industrial Revolution 4.0"	P4TK IPA, Bandung, 8-10 May 2019	International

SEAQIS Research Grants 2018

SEAMEO QITEP in Science put concerns on the competence improvement of teachers and education personnel in the region. One of the ways is by providing supports for them to explore their capability to conduct research enhancing their quality of teaching learning process in class. This is to accommodate the SEAMEO 7 Priority Area no. 5: Revitalizing Teacher Education and supporting Priority Area no. 7: Adopting 21st Century Curriculum.

SEAQIS Research Grants 2018 was devoted to the science teacher both national and regional to enhance their capacity in research area. The Centre provided research training and sum of research grants (five million rupiahs) as seed money to subsidise their research. This programme was expected to enhance the quality of learning and teaching process in the classroom level.

SRG 2018 was carried out under the theme of The Enhancement of Students' 21st skills through STEM based learning. The grantees were 30 selected science teachers (out of 78 candidates) enrolled as member of Local Science Teacher Working Group.

List of the Grantees

SEAQIS Research Grants 2018

No	Name	MGMP	Title
1	- Masyhudin, M.Pd. - Ertin, S.Si.	MGMP Kimia Kota Bima	The Impact of STEM Learning towards Concept Comprehension, Creative Thinking Skill and Communication Skill of SMA 1 Kota Bima Students
2	- I Gede Ngurah Dharma Setyawan, S.Pd., M.Pd. - Zainal Abidin, S.Pd.	MGMP Kimia Kab. Badung	The Impact of STEM (Science, Technology, Engineering and Mathematic) Learning towards Creative Thinking Skill of Students on the Concept of Electrochemical Cell
3	- Dida Firgiawan, S.Pd, M.Pd. - Siti Zumrohatin	MGMP Biologi Kota Bandung	Simple Auxanometer on STEM Learning to Improve the Concept Comprehension and Science Literacy of High School Students
4	- I Gusti Ngurah Arjana, S.Pd., M.Pd. - Gede Sandi, S.Pd., M.Pd.	MGMP Kimia Kota Denpasar	The Impact of STEM Learning towards Concept Comprehension, Critical Thinking Skill and Teamwork Skill
5	Faizin, S.Pd. Drs. H. Artajab, M.Pd.	MGMP Biologi Kab. Lombok Timur	The Impact of STEM Learning towards Concept Comprehension, Critical Thinking Skill, and Teamwork Skill on Plants' Growth and Development Concept of XII Grade Students of SMAN 1 Sukamulia 2018
6	- Wiwik indah Kusumaningrum, S.Pd., M.Pd. - Dian Wulandari, S.Pd.	MGMP Kimia Kota Semarang	The Impact of STEM Learning towards Concept Comprehension and Science Literacy of Students on Colligative properties of solutions Concept
7	- Solehudin, M.Pd. - Drs. Akhmad Alamsyah	MGMP Kimia Kota Cirebon	The Impact of STEM Learning towards Concept Comprehension, Critical Thinking Skill , and Teamwork Skill
8	- Ni Made Deasy Dewayanti, S.Si, M.Pd - Ida Bagus Heru Suandita	MGMP Biologi Kab. Klungkung	Project-based STEM (Science, Technology, Engineering, and Mathematic) Development on Biology Learning of X grade in Improving Concept Comprehension, Critical Thinking Skill, and Teamwork Skill
9	- Lili Abdullah Rozak, S.Pd., M.M. - Drs. Dadang Darmawan, M.Pd.	MGMP IPA Kab. Ciamis	The Impact of STEM Learning towards Concept Comprehension, Critical Thinking Skill, and Teamwork Skill on Temperature Change Concept in VII grade of SMP Negeri 6 Ciamis
10	- Iwan Agustiawan, M.Pd - Hasan Djazili, S.Pd.	MGMP Biologi Kota Cirebon	The Development of Students Worksheet with STEM Approach to Improve Creative Thinking and Communication Skill on Biodiversity Concept

10	- Iwan Agustiawan, M.Pd - Hasan Djazili, S.Pd.	MGMP Biologi Kota Cirebon	The Development of Students Worksheet with STEM Approach to Improve Creative Thinking and Communication Skill on Biodiversity Concept
11	- Susanti, M.Pd. - Asep Rirris Triyadi	MGMP Biologi Kab. Tasikmalaya	The Impact of STEM Learning towards Concept Comprehension, Creative Thinking Skill, and Communication Skill of High School Students on Biology Learning
12	- Eny Triastuti - Muslimah, S.Pd.	MGMP Kimia Kota Yogyakarta	Non-Electrical Refrigerator on STEM-based Chemistry Learning to Improve Students' Critical Thinking Skill
13	- Agus Ferdiana, S.Pd. - Neneng Lilih Hayati, S.Pd.	MGMP Kimia Kota Bandung	The Impact of STEM (Science, Technology, Engineering, and Mathematic) Learning towards Concept Comprehension, Creative Thinking Skill, and Communication Skill on Chemical Bond Concept in X grade of SMAN 5 Bandung
14	- B. Rohmi Masban, S.Pd. - M. Afturizalinur A., S.Pd., M.Pkim	MGMP Kimia Lombok timur	The Impact of STEM Learning towards the Improvement of Students' 21st Century Skill on Redox Reactions and Electrochemistry Concept in SMA Negeri1 Sakra
15	- Dr. Sri Utari, M.Pd. - Sigit Nurwanta	MGMP Biologi Kota Yogyakarta	The Impact of STEM Learning towards concepts understanding and Science literacy on plants growth and development
16	- Imam Wicaksono, S.Si., M.Pd. - Triono	MGMP IPA Gunungkidul	The Impact of STEM-based Science Learning towards Concept Comprehension and Science Literacy of VIII Grade Junior High School Students
17	- Isnaini Cahyanto, M.Pd. - Ishak Prihatna, M.Pd.	MGMP IPA Kab. Bogor	The Improvement of Science Literacy by STEM-based Science Learning on VII Grade Students of SMPN 3 Leuwiliang Bogor
18	- Hj. Nurhayati, M.Pd - Rizal Firmansyah, S.Pd.	MGMP IPA Wilayah I Sumedang	The Impact of STEM-based Learning towards Concept Comprehension, Critical Thinking Skill, and Teamwork Skill on Heat Concept
19	- Edy Siswanto, S.Pd - Hafit Juliardi, S.Si.	MGMP IPA Kota Banyuwangi	The Impact of STEM-based Learning towards Concept Comprehension of Linear Motion and Science Literacy
20	- Salis Ahda, M.Pd. - Khoirul Haniin, S.Pd.	MGMP Fisika Kota Malang	The Impact of STEM-based Learning towards Concept Comprehension and Critical Thinking Skill of Students of SMA Negeri 4 Malang
21	- Khairul Amar, S.Pd. - Mukarramah, S.Pd.	MGMP IPA Kab. Dompu	The Impact of Integrated PBL Learning in Improving Learning Results, Creative Thinking Skill, and Communication Skill on VII Grade Students of SMP Negeri 2 Dompu in the 2018/2019 Academic Year

22	- Riyadi Priyambodo, S.Pd., M.Pd. - Hj. Ai Suryati, S.Pd., M.pd.	MGMP IPA Wilayah Barat Kab. Tasikmalaya	The Impact of STEM-based Learning towards Concept Comprehension and Science Literacy on Waves and Vibration Concept of VIII Grade of SMP Negeri 1 Padakembang
23	- Drs. Ahmad Jamil - Drs. Himawan Darmo Siswanto	MGMP IPA Kota Malang	The Impact of STEM-based Guided Inquiry Worksheet towards The Improvement of Concept Comprehension and 21st Century Skill
24	- Ririn Masrikhah, M.Si - Moch Ansori	MGMP Biologi Kota Semarang	The Impact of STEM Learning towards Concept Comprehension, Creative Thinking Skill, and Communication Skill growing and developing of plants
25	- Hasto Pancoro, M.Pd. - Bambang Setiawan, M.Pd.	MGMP Fisika Kota Bima	The Impact of Problem Based Learning Model with STEM approach to Improve Concept Comprehension and Science Literacy of Students on Friction Concept
26	- Suyanto, M.Pd. - Dwi Muh Fajar Basuki, M.Pd.	MGMP Fisika Kota Semarang	Improving Students' Scientific Communication Skill through STEM-based Physics Learning on Electromagnetic Induction Concept in XII Grade of SMAN 4 Semarang
27	- Dr. Drs. I Gusti Nyoman Suardika, M.Pd. - Drs. I Ketut Mudika	MGMP Fisika Kota Denpasar	The Impact of STEM-based Learning towards Concept Mastery and Physics Science Literacy Ability Seen from Students' Personality Type
28	- Dede Sahidin, S.Pd., M.Pd. - Hasan Salim, S.Pd., M.Pd.	MGMP Fisika kota Bogor	Improving Physics Learning Results and 21st Century Skill (Collaboration) on Geometry Optic Concept Using IPODS Approach and Kahoot Software Media in XI Grade MIPA 1 SMA Negeri 2 Bogor
29	- Dakri, S.Pd. - Dra. Dewi Insani, M.Pd.	MGMP Fisika Kab. Tuban	The Implementation of STEM Approach Learning through Turbine Blades Design to Build Concept Comprehension and 21st Century Skill
30	- Ida Mintarina Nulfita, M.Pd. - Nanik Mubiyati, S.Pd., M.Pd.	MGMP Fisika SMA Kab. Bojonegoro	The Impact of STEM-based Learning thorugh on Concept Comprehension and Science Literacy of XI Grade MIPA Students of SMAN 1 Padangan in the Year of 2018/2019 Siswa Kelas XI MIPA SMAN 1 Padangan Tahun 2018/2019

Financial Viability

To undertake its programmes and activities during the fiscal year under review. The Centre augmented the funds coming from the Goverment of Republic of Indonesia. The budget system applied in Indonesia is based on Performance-Based Budgeting and Medium Term Expenditure Framework. It consisted of US$ 375.980 operating fund, US$ 3.824 capital fund, and $ 260.359 special fund (As per 30 June 2019). Moreover Center also get some funding related on the collaborative programme, amount of funds received from related offices (Unit in MoE of Indonesia and local Education Offices) is US$ 16.399.

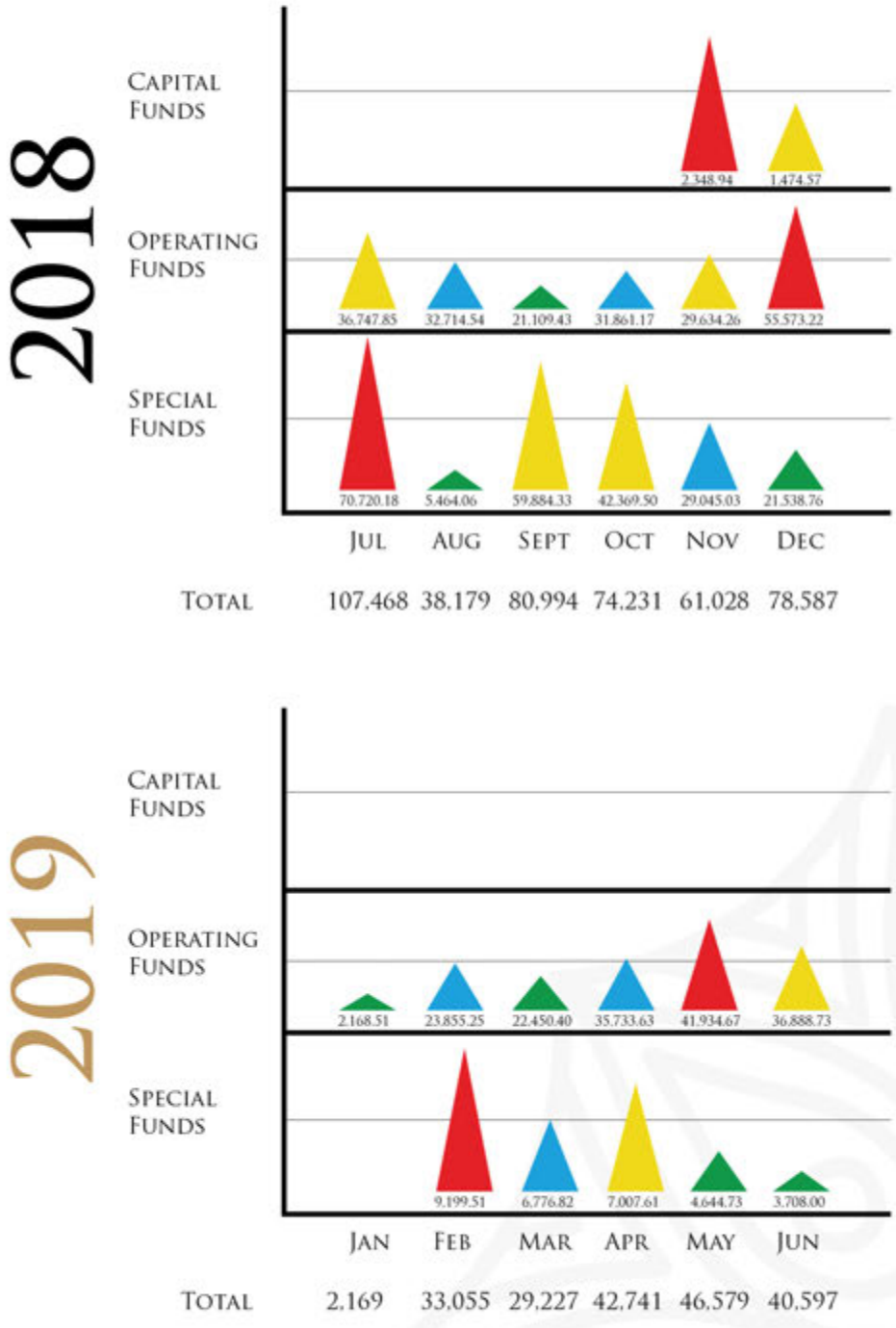
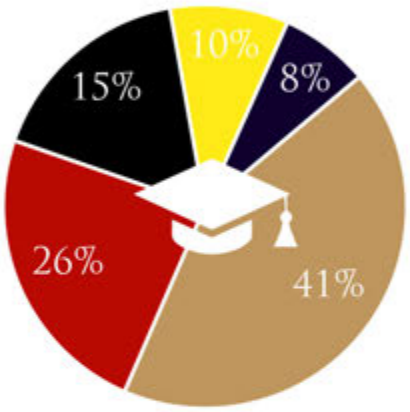


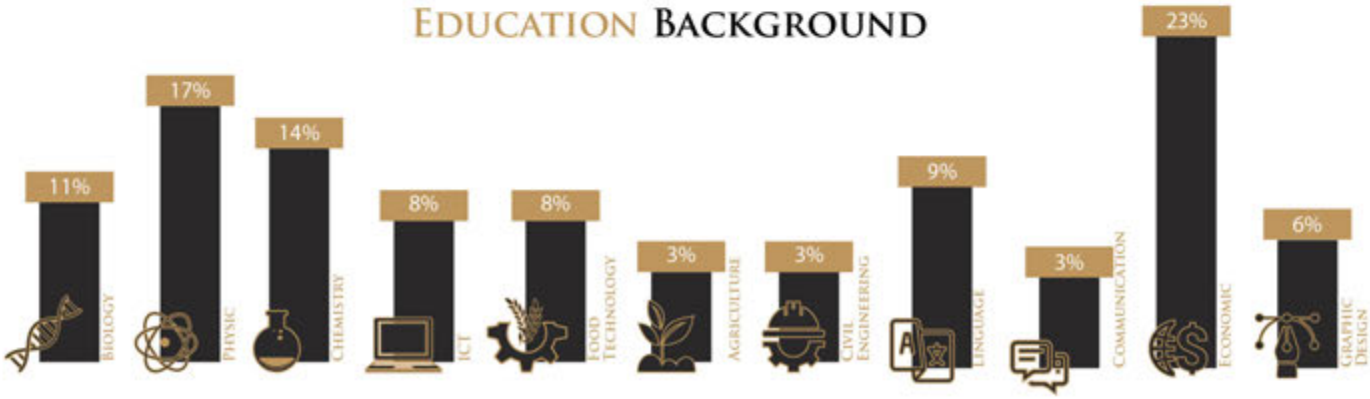
Chart 3. Financial Viability

EDUCATION DEGREE



- BACHELOR
- MASTER
- DOCTOR
- HIGH SCHOOL
- DIPLOMA

EDUCATION BACKGROUND



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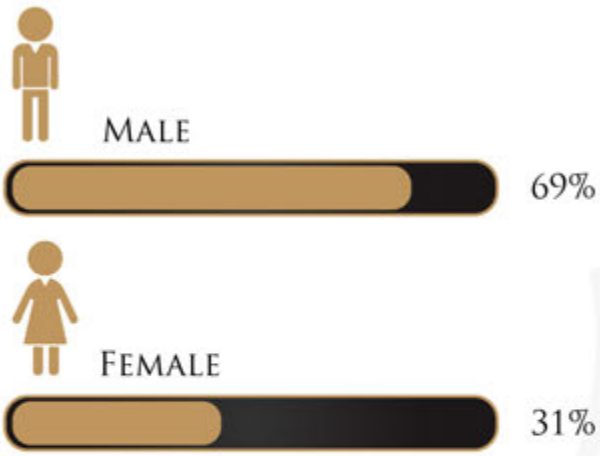

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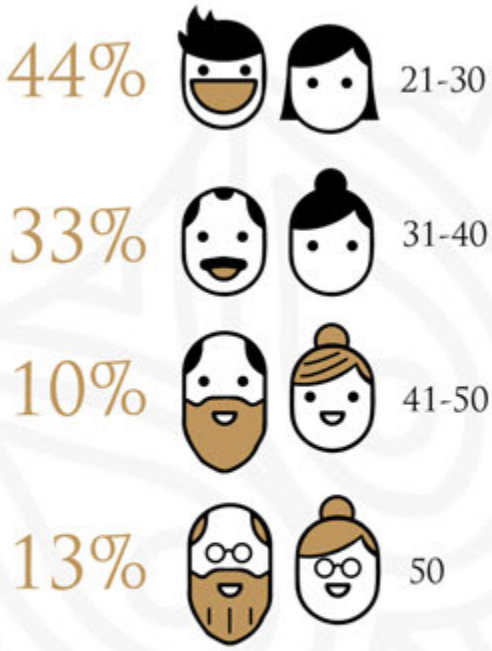

Chart 4. Human Resource Management

Staff Capacity Building

During FY 2018/2019, the Centre made an effort in improving the Centre's staff capacity through several activities related to Inquiry-Based Science Education (IBSE); Science, Technology, Engineering, and Mathematics (STEM) Education; and other relevant topics.

Participation in Trainings, Seminars, Conferences, and Workshops

The Center has the dedication to promote IBSE in regional education realms by creating innovative trainings for teachers and educational personnel. To realize this idea, the Centre should have a certain number of staffs with science background and have excellent understanding on IBSE principles. To address this issue, SEAQIS has set the policy to involve some staff in regional trainings and other activities conducted either by the Centre itself or by other institutions. This policy has led the staff to gain comprehensive experiences on how to apply IBSE principles in trainings. Furthermore, as the Centre's programmes during the fiscal year focused on STEM education, a number of programmes related to this topic became the Centre's priority in its capacity building activities. Some of the most prominent events participated by the Centre's staffs are listed below.

A. Training

No	Name of Activity	Date & Venue	Remarks
	Training Course on Earth and Space Science	10-19 July 2018 in PPPPTK IPA, Bandung, West Java, Indonesia.	Highlighted speaker: Prof. Bambang Hidayat from ITB
	Training Course on Environmental Education for Sustainable Development	10-19 July 2018 PPPPTK IPA, Bandung, West Java, Indonesia.	Highlighted speaker: Prof Shahbaz Khan, Director UNESCO Jakarta Office
	Training Workshop for IBSE Master Trainers on Climate Change Education	27-30 August 2018 Tamu Hotel, Kuala Lumpur, Malaysia	Hosted by: ISTIC Malaysia
	Training on STELR – STEM Education for Asia Pacific Region	01-05 Oct 2018 Atlantic City Hotel, Bandung, West Java, Indonesia.	Highlighted speaker: Experts from Australian Academy of Technology and Engineering (ATSE)
	Training on Transforming STEM Education Through Modelling Instruction	13-16 May 2019 PPPPTK IPA, Bandung, West Java, Indonesia	Highlighted speaker: American Modelling Teachers Association (AMTA)
	Training on Regional Education Management and Strategic	24-29 June 2019 Yuengnam University, South Korea	Hosted by: Yeungnam University
	Planning for SEAMEO Regional Centres in Southeast Asia		

B. Workshop

No	Name of Activity	Date & Venue	Remarks
	Workshop on Enhancing Critical and Computational Thinking trough Design-based Approach in STEM Context: Challenge to Transform STEM Education to Artificial Intelligent (AI)-Generation Education	25-29 Mar 2019 SEAMEO RECSAM, Penang, Malaysia	Hosted by: SEAMEO RECSAM
	NEQMAP Capacity Development Workshop School-Based, Classroom, Teacher, and Formative Assessment	24-27 June 2019 Grandia Hotel, Bandung, Indonesia	Highlighted speaker: Experts from Australian Council for Educational Research
	Workshop on Sharing Best Practices in Improving the Quality of Teachers and Education Personnel in SEA Region	10-14 March 2019 Korea National Univerity of Education, Seoul, South Korea	Hosted by: Korea National Univerity of Education
	Workshop on Sharing Practices in Implementing Southeast Asia Teacher Competency Framework	17-19 April 2019 SEAMEO RETRAC, Ho Chi Minh City, Vietnam	Hosted by: SEAMEO RETRAC
	The 2nd Belt and Road Teenager Maker Camp and Teacher Workshop	15-21 November 2019 Beijing, China	Hosted by: Children & Youth Science Center (CYSC)

C. Seminar, Conference, Symposium

No	Name of Activity	Date & Venue	Remarks
	The 3rd International Conference on GCED	05-06 September 2018 Lotte Hotel Seoul, South Korea	Hosted by: Asia-Pacific Centre of Education for International Understanding (APCEIU)
	SEAMEO-University of Tsukuba Symposium VII: Reform and Development in Teacher	10 February 2019 Tokyo Campus, University of Tsukuba, Tokyo, Japan	Hosted by: Tsukuba University and SEAMEO Secretariat

Education for the Digital Economy.

SEAMEO Internship Programme

In addition, the Centre also assigned two staffs to conduct internship at SEAMEO Secretariat, Bangkok, Thailand. The internship held from 3 February to 29 March 2019. During the internship, the staffs were responsible for managing some projects of SEAMEO Secretariat. This responsibility helped them to acquire skills in project management and administration system. They took part in managing the 5th Polytechnic Meeting (Poly Meeting), SEA-Teacher Batch VII, SEAMEO College Training, School Leadership and Supervisory Programme 2019, and SEA-Creative Camp.

Knowledge Sharing Day

Knowledge Sharing Day (KSD), as part of a knowledge management initiative, is a knowledge, information, and best practices sharing activity between SEAMEO QITEP in Science staff that has been conducted since 2016. This programme aims to provide an interactive forum to share knowledge, information, and best practices between the Centre staff which impacts to the improvement of staff competency.

During the Fiscal Year 2018/2019, the KSD activities covered several topics including Inquiry-based Science Education (IBSE), Higher Order Thinking Skills (HOTS), STEM Education, ICT skills, and language skills. These activities also became a forum for staffs to share any knowledge and information gained from their participation in trainings, seminars, workshops, etc.

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