| โรงเรี | รียนจย ป | ามสร | างก์เ | อุปถั่ม | เก๋ |
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| วันที่ | 2.1 | શે.ઇ. | 2567 | | |
| เวลา | | | | | •• |

ମୁ ଧ୍ୟ ଠଝ୍ଞାଡଙ୍କ୍ ଡାଣ୍ଡ

สำนักงานเขตพื้นที่การศึกษามัธยมศึกษา
พระนครศรีอยุธยา โรงเรียนอยุธยาวิทยาลัย
๕๓ หมู่ที่ ๒ ถนนป่าโทน ตำบลประตูชัย
อำเภอพระนครศรีอยุธยา
จังหวัดพระนครศรีอยุธยา ๑๓๐๐๐

๒๐ มิถุนายน ๒๕๖๗

เรื่อง ประกาศผลผู้ได้รับทุนฝึกอบรมของศูนย์ SEAMEO QITEP in Science ประจำปี ๒๕๖๗ เรียน ผู้อำนวยการโรงเรียนในสังกัด

สิ่งที่ส่งมาด้วย หนังสือสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ด่วนที่สุด ที่ ศธ ๐๔๐๑๐/ว ๑๗๐๔

ลงวันที่ ๑๙ มิถุนายน ๒๕๖๗

ตามหนังสือที่อ้างถึง สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ขอให้สำนักงานเขตพื้นที่ การศึกษาประชาสัมพันธ์ทุนฝึกอบรมของศูนย์ระดับภูมิภาคว่าด้วยการพัฒนาคุณภาพครูและบุคลากรทางการศึกษา ด้านวิทยาศาสตร์ของซีมีโอ (SEAMEO Regional Centre for Quality Improvement of Teachers and Education Personnel in Science: SEAMEO QITEP in Science – ซีมีโอคีเท็ปด้านวิทยาศาสตร์) ณ สาธารณรัฐอินโดนีเชีย ประจำปี ๒๕๖๗ จำนวน ๓ หลักสูตร อบรมระหว่างวันที่ ๔ – ๑๐ สิงหาคม ๒๕๖๗ ณ เมืองบันดุง สาธารณรัฐอินโดนีเชีย บัดนี้ คณะกรรมการคัดเลือกผู้สมัครเข้ารับทุนดังกล่าวเรียบร้อยแล้ว รายละเอียดดังสิ่งที่ส่งมาด้วย ๑

ในการนี้ สำนักงานเขตพื้นที่การศึกษามัธยมศึกษาพระนครศรีอยุธยา ขอแจ้งประชาสัมพันธ์ โรงเรียนในสังกัดทราบ รายละเอียดดังสิ่งที่ส่งมาด้วย

| จึงเรียนม | บาเพื่อทราบ ✓ พ | ปับริหารงานบุคคล |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| เขน ผู้คำนวยการเพื่อ กราบ เพ. สมควรมอบฝ่าย | ขอแสดงความนับถือ (นางสาวเด็ตสุมนต์ สุเมธีประดิษฐ์) รองผู้อำนวยการสำนักงานเขตพื้นที่การศึกษามัธยมศึกษาพระนครศรีอยุธยา ปฏิบัติราชการแพน ผู้อำนวยการสำนักงานเขตพื้นที่การศึกษามัธยมศึกษาพระนครศร์ | บริหารงบประมาณา บริหารทั่วไป สำนักงานผู้อำนวอก เรื่อง |

กลุ่มพัฒนาครูและบุคลากรทางการศึกษา โทร ๐๘๒-๖๖๓-๕๗๘๐ ยุติเทพ การิเทพ



สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน กระทรวงศึกษาธิการ กทม. ๑๐๓๐๐

อณ มิถุนายน ๒๕๖๗

เรื่อง ผู้ได้รับทุนฝึกอบรมของศูนย์ SEAMEO QITEP in Science ประจำปี ๒๕๖๗ เรียน ผู้อำนวยการสำนักงานเขตพื้นที่การศึกษาทุกเขต

อ้างถึง หนังสือสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ด่วนที่สุด ที่ ศธ ๐๔๐๑๐/ว๑๔๖๖ ลงวันที่ ๒๙ พฤษภาคม ๒๕๖๙

สิ่งที่ส่งมาด้วย ๑. ประกาศผลการคัดเลือกฯ

จำนวน ๑ อบับ

๒. กำหนดการและรายละเอียดการอบรม จำนวน ๑ ฉบับ

ตามหนังสือที่อ้างถึง สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน ขอให้สำนักงาน เขตพื้นที่การศึกษาประชาสัมพันธ์ทุนฝึกอบรมของศูนย์ระดับภูมิภาคว่าด้วยการพัฒนาคุณภาพครูและบุคลากร ทางการศึกษาด้านวิทยาศาสตร์ของซีมีโอ (SEAMEO Regional Centre for Quality Improvement of Teachers and Education Personnel in Science: SEAMEO QITEP in Science – ซีมีโอคีเท็ปด้านวิทยาศาสตร์) ณ สาธารณรัฐ อินโดนีเชีย ประจำปี ๒๕๖๗ จำนวน ๓ หลักสูตร อบรมระหว่างวันที่ ๔ - ๑๐ สิงหาคม ๒๕๖๗ ณ เมืองบันดุง สาธารณรัฐอินโตนีเชีย ความละเอียดแจ้งแล้ว นั้น

ในการนี้ คณะกรรมการคัดเลือกผู้สมัครเข้ารับทุนฝึกอบรมของศูนย์ระดับภูมิภาคว่าด้วย การพัฒนาคุณภาพครูและบุคลากรทางการศึกษาด้านวิทยาศาสตร์ของซีมีโอ (SEAMEO QITEP in Science) ณ สาธารณรัฐอินโดนีเซีย ประจำปี ๒๕๖๗ ได้พิจารณาคัดเลือกผู้ที่สนใจและมีคุณสมบัติครบถ้วนตามกำหนด ตามประกาศผลการคัดเลือกฯ รายละเอียดดังสิ่งที่ส่งมาด้วย ๑ และขอให้สำนักงานเขตพื้นที่การศึกษาที่เกี่ยวข้อง แจ้งผู้สมัครที่ผ่านการคัดเลือกทราบกำหนดการและรายละเอียดการอบรม รายละเอียดดังสิ่งที่ส่งมาด้วย ๒ ทั้งนี้ สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน อนุญาตให้ผู้ได้รับคัดเลือกใช้วันปฏิบัติราชการเพื่อเข้าอบรม หลักสูตรดังกล่าวตามวันและเวลาที่กำหนด โดยไม่ถือเป็นวันลาราชการ

จึงเรียนมาเพื่อทราบ และดำเนินการต่อไป

ขอแสดงความนับถือ

(นางเกศทิพย์ ศุภวานิช) **รองเลงาธิการคณะกรรมการการศึกษาขึ้นสำเราน ปฏิบัติราชการแทน** เลขาธิการคณะกรวหการการศึกษาขั้นพื้นฐาน

สำนักวิชาการและมาตรฐานการศึกษา [NS. 0 ම්මස්ස් අන්වස්



ประกาศสำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน เรื่อง ผลการคัดเลือกผู้สมัครเข้ารับทุนฝึกอบรมของศูนย์ระดับภูมิภาคว่าด้วยการพัฒนาคุณภาพครู และบุคลากรทางการศึกษาด้านวิทยาศาสตร์ของซีมีโอ (SEAMEO QITEP in Science) ณ สาธารณรัฐอินโดนีเซีย ประจำปี ๒๕๖๗

ตามที่สำนักงานปลัดกระทรวงศึกษาธิการ ขอให้สำนักงานคณะกรรมการการศึกษาขั้นพื้นฐาน เสนอชื่อผู้สมัครที่มีคุณสมบัติเหมาะสม ในการเข้ารับการอบรมของศูนย์ระดับภูมิภาคว่าด้วยการพัฒนาคุณภาพ ครูและบุคลากรทางการศึกษาด้านวิทยาศาสตร์ของซีมีโอ (SEAMEO Regional Centre for Quality Improvement of Teachers and Education Personnel in Science: SEAMEO QITEP in Science – ซีมีโอคีเท็บด้านวิทยาศาสตร์) ณ สาธารณรัฐอินโดนีเซีย จำนวน ๓ หลักสูตร ได้แก่ หลักสูตร Environmental Education for Sustainable Development (EESD) จำนวน ๑ ทุน หลักสูตร Earth and Space Science (ESS) จำนวน ๑ ทุน และหลักสูตร Science Classroom Supervision (SCS) จำนวน ๑ ทุน ขณะนี้สำนักงาน คณะกรรมการการศึกษาขั้นพื้นฐาน ได้คัดเลือกผู้สมัครเข้ารับทุนฝึกอบรมดังกล่าว เสร็จเรียบร้อยแล้ว นั้น

ผู้ได้รับการคัดเลือกเข้ารับทุนฝึกอบรมหลักสูตร Environmental Education for Sustainable Development (EESD) ตัวจริง จำนวน ๑ คน ได้แก่ นางสาวสุขุมาล สุขุมานันท์ ครู โรงเรียนเตรียมอุดมศึกษา พัฒนาการ สุวรรณภูมิ สำนักงานเขตพื้นที่การศึกษามัธยมศึกษากรุงเทพมหานคร เขต ๒ และ ตัวสำรอง จำนวน ๒ คน ได้แก่ สำรองอันดับ ๑ นางสาวนถุมล แก้วมาก ครู โรงเรียนปราจิณราษฎรอำรุง ปราจีนบุรี สำนักงานเขตพื้นที่การศึกษามัธยมศึกษาปราจีนบุรี นครนายก และสำรองอันดับ ๒ นางสาวกมลขนก ชีวะกุล ครู โรงเรียนเบญจมราชูทิศ จังหวัดปัตตานี สำนักงานเขตพื้นที่การศึกษามัธยมศึกษาปี

ผู้ได้รับการคัดเลือกเข้ารับทุนฝึกอบรมหลักสูตร Earth and Space Science (ESS) ตัวจริง จำนวน ๑ คน ได้แก่ นายภูมิ ประยูรโภคราช ครู โรงเรียนตากพิทยาคม สำนักงานเขตพื้นที่การศึกษา มัธยมศึกษาตาก และ ตัวสำรอง จำนวน ๒ คน ได้แก่ สำรองอันดับ ๑ นางสาวกุลธิดา สุวัชระกุลธร ครู โรงเรียนระยองวิทยาคม สำนักงานเขตพื้นที่การศึกษามัธยมศึกษาชลบุรี ระยอง และสำรองอันดับ ๒ นายนัฐกานต์ วรุฬหธรรม ครู โรงเรียนนวมินทราชูทิศ พายัพ สำนักงานเขตพื้นที่การศึกษามัธยมศึกษาเชียงใหม่

ผู้ได้รับการคัดเลือกเข้ารับทุนฝึกอบรมหลักสูตร Science Classroom Supervision (SCS) ตัวจริง จ่ำนวน ๑ คน ได้แก่ นางสาวธาราทิพย์ วงษ์บรรณะ ผู้อำนวยการโรงเรียนนวมินทราชูทิศ พายัพ สำนักงานเขตพื้นที่การศึกษามัธยมศึกษาเชียงใหม่ และ ตัวสำรอง จำนวน ๒ คน ได้แก่ สำรองอันดับ ๑ นายเอกวิทย์ มั่งอะนะ ผู้อำนวยการโรงเรียนลานกระบือวิทยา สำนักงานเขตพื้นที่การศึกษามัธยมศึกษา กำแพงเพชร และสำรองอันดับ ๒ นางธิรตา ไชยสีย์ รองผู้อำนวยการโรงเรียนบ้านผึ้งวิทยาคม สำนักงาน เขตพื้นที่การศึกษามัธยมศึกษานครพนม

จึงประกาศให้ทราบโดยทั่วกัน

ประกาศ ณ วันที่ ว6 ่ มิถุนายน พ.ศ. ๒๕๖๗

(นางเกศทีพย์ ศุภวานิช) รองเลขาธิการคณะกรรษการการศึกษาขั้น^{สั}นราน ปฏิบัติราชการแทน เลขาธิการคณะกรรษการการศึกษาขั้นตื้นฐาน

Concept Note

Training Course on Environmental Education for Sustainable Development 2024

Rationale

The most influential living creature on Earth is human. Therefore, merely discussing environmental topics as concepts will not suffice; rather, we, as human beings, must take action to address them. One of the most concerning issues is climate change. The world is already experiencing severe extreme weather events and the mounting impacts of climate change, which poses a serious threat to human civilizations and sustainable development efforts. Given these issues, partial actions, unstructured approaches, and routine policies must be discontinued. It requires significant and sustained efforts from government authorities, academia, NGOs, and others to ensure that young generations have the means to understand and take action, thereby protecting them from prejudice, ideology, or irrational thinking and preparing them to live in a changing world. Education plays an essential role and serves as a catalyst in responding to global environmental issues and the phenomenon of climate change. Integrating environmental education into science education raises awareness and promotes the development of knowledge and skills.

Climate change is affecting every country on every continent and is the biggest issue facing the planet. It disrupts national economies and affects lives. Weather patterns are changing, sea levels are rising, and weather events are becoming more extreme. One of the important sectors that can contribute to reducing the further impacts of climate change is education. Climate change education promotes learning about the causes and effects of climate change, as well as possible responses, providing a cross-curricular and multidisciplinary perspective. It develops competencies in the field of climate change mitigation and adaptation to promote climate-resilient development and reduce the vulnerability of communities in the face of an uncertain future.

Education systems should make efforts to promote sustainable development in their curriculum and implement eco-friendly practices within their institutions. Even less-discussed education systems must take action to sustain themselves and build resilience in the face of emergencies, aiming to prevent, prepare for, mitigate the impact of, respond to, and recover from such crises. Despite good intentions for the professional development of teachers, the practice often falls short. Teacher education for sustainable development and climate education, although taken up by enthusiasts, has rarely been mainstreamed and is often approached within a disciplinary frame (Wals, A., 2009, in UNESCO, 2013). Climate change education, occurring in primary and secondary schools, requires a multidisciplinary approach that involves traditional scientific disciplines as well as humanities and social sciences, emphasizing action-oriented learning. Teachers, whose role is crucial to the success of such educational projects, need worldwide support and access to quality resources for professional development.

SEAMEO QITEP in Science (SEAQIS) as a regional Centre in Southeast Asia which focuses on developing the quality of science teachers, has brought environment and climate change issues through its training courses including Environmental Education for Sustainable

Development (EESD) since its establishment in 2009. EESD provides an umbrella for many forms of education, and climate education fosters understanding of the complexities and interconnection of the various challenges posed by climate change. The training is designed to provide participants with knowledge on climate sciences and skills in inquiry-based science education. It is expected that this activity will support the SEA-CEP as an Asian network around climate change education. Furthermore, this program can be seen as a manifestation of the mandate given to SEAQIS which is stated in the Seven Priorities of SEAMEO Education Agenda 2015-2035. This training programme is expected to be an important part of improving the quality of science teaching and learning in schools with respect to the environment, ecosystem conservation, and their support for sustainable development.

Learning Objectives

After the training, participants should be able to:

- 1. Share best practices in environmental education activities related to knowledge development, skills, and values as well as their support for sustainable development;
- Understand other issues related to environment and sustainable development such as historical perspective and state of the art of sustainable development, greenhouse effect and the science behind climate change, climate change and biodiversity and how to implement climate change education;
- 3. To acquaint master teachers with global and local issues of climate change using Inquiry-Based Science Education (IBSE) as an approach to teaching climate change;
- 4. Acquaint participants with global and local issues related to climate change through STEM Education and Computational Thinking as an approach to teaching climate change;
- 5. Enhance teachers' skills, understanding, and competencies to assist in implementing climate change-informed science learning;
- 6. Provide participants with a solid framework for producing locally relevant educational programs on climate-change issues;
- 7. Increase schools' community perception and willingness regarding climate change mitigation and adaptation;
- 8. Integrate sustainable development issues into science learning and their assessment.

Participants and Facilitators

- The target participants of this training are Science teachers and education personnel from junior and senior high schools which come from SEAMEO member countries (Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Lao, Philippines, Singapore, Timor Leste, Thailand, Vietnam)
- The facilitators of this training are experts from well-known universities in Indonesia: Padjadjaran University (UNPAD), Institut Pertanian Bogor (IPB), SEAMEO Biotrop, and the academic team from SEAQIS.

Time and Place

The training course will be conducted from 04–10 August 2024. The venue of the programme is in Bandung, Indonesia.

Course Programme

Programme Structure Training on Environmental Education for Sustainable Development 2024

| | O Culting | He | ours |
|-----|----------------------------------------------------------------------|--------|--------|
| No. | Course Subject | Theory | Theory |
| 1 | Global and Southeast Asia Policy on Climate Change | 2 | - |
| 2 | Sustainable Development: Historical perspective and state of the art | 2 | - |
| 3 | Green House Effect, Climate System, and Climate Change | 3 | 2 |
| 4 | Environmental Education Profiles in Southeast Asia | 2 | 4 |
| 5 | Introduction of E-STEM (Environmental STEM) in Classroom Practices | 2 | 4 |
| 6 | Climate Change and Biodiversity | 2 | 4 |
| 7 | Teaching on Climate Change and Biodiversity in Classroom | 2 | 4 |
| 8 | Cultural Exchanges and Sharing among SEAMEO Countries Participants | - | 5 |
| 9 | Field Study | 2 | 6 |
| 10 | Action Plan | - | 1 |
| 11 | Training Orientation | 1 | - |
| 12 | Pre/Post Test | - | 2 |
| | Total | 18 | 32 |
| | | | 50 |

Scope of Subject

| No. | Course Subject | Lesson Hours | Learning Objective | Scope of content |
|-----|----------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Global and Southeast Asia Policy on Climate Change | 2 | Understand current climate change trends and issues at global and Southeast Asia regional scale | Policies, action, and efforts conducted by SEAMEO Member Countries to reach the global vision of sustainable development through environmental education. Environment current state and environmental education profiles in Southeast Asia (explained by participants from each country). |
| 2. | Sustainable Development: Historical perspective and state of the art | 2 | Understand other issues related to environment and sustainable development such as historical perspective and state of the art of sustainable development, greenhouse effect and science behind the climate change, climate change and biodiversity and how to implement climate change education. | Basic concept of Sustainable Development (SD), the environmental, social and economic dimensions. Basic concept of Sustainability Science. Major ecological concepts, the environmental problems that affect the world in which we live and methodologies that will help us manage the Earth's resources today and into the future. |

| No. | Course Subject | Lesson Hours | Learning Objective | Scope of content |
|-----|-----------------------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | Development of sustainability concept and sustainability science in recent years. Implementation of sustainability concept in real practice. Case study in Indonesia. |
| 3. | Green House Effect, Climate System, and Climate Change | 5 | To acquaint master teachers to global and local issues of climate change using Inquiry-based Science Education (IBSE) as an approach to teaching climate change. | Examination of the Greenhouse Effect Climate System dynamics Intricacies of Climate Change phenomena. |
| 4. | Environmental Education Profiles in Southeast Asia | 6 | Share best practices in environmental education activities related to knowledge development, skills, and values as well as their support to sustainable development; | Sharing implementation of environmental education concept in real practice. |
| 5. | Introduction of E-STEM (Environmental STEM) in Classroom Practices | 6 | Acquaint participants to global and local issues related to climate change through STEM Education and Computational Thinking as an approach to teaching climate change. | The scope of content involves introducing E-STEM (Environmental STEM) into classroom practices, including exploring its principles, methodologies, and applications within the educational context and Climate Change. Terms of Science Process Skills, introduction of STEM Education and Learning Assessment, and its connection with EESD. |
| 6. | Climate Change and Biodiversity | 6 | Analize and understanding the importance of biodiversity and ecosystem services. | The importance of ecosystem functions in life, the influence of biodiversity on ecosystem and how to maintain it. Exposure to the biodiversity of REEPS (Rare, Endangered, Endemic, & Protected Species) in Southeast Asia region. Management that involves putting natural resources to their best use for human purposes in addition to preserving the natural system. |
| 7. | Teaching on Climate Change and Biodiversity in Classroom | 6 | Enhance teachers' skills, understanding, and competencies to assist in implementing climate change-informed science learning. | Science curriculum analysis and facilitation method design for an effective implementation of the environmental education to support sustainable development in the classroom. |

| No. | Course Subject | Lesson Hours | Learning Objective | Scope of content |
|-----|--------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | Learning Scenario on Environmental Education in Classroom Assessment Method on Environmental Education in Classroom Designing Learning Scenario and Assessment of EESD in Classroom |
| 8. | Cultural Exchanges and Sharing among SEAMEO Countries Participants | 5 | to foster cross-cultural understanding, collaboration, and knowledge-sharing among participants from SEAMEO member countries. | The participants from all SEAMEO Member Countries will be participating in showing their national culture. The cultural exchange serves as a platform for participants from different countries to interact with each other, learn about other cultures and customs. In past years, the participants have performed traditional dance, recited poetry, played musical instruments, and sang national songs from their respective countries. |
| 9. | Field Study | 8 | Increase schools' community perception and willingness regarding climate change mitigation and adaptation; | Study visits to the location of community which is implement the sustainable environmental systems. |

Concept Note

Training Course on Earth and Space Science

A. Rationale

Earth is the only planet known to have abundant and complex life. Understanding how the Earth and the Antarctic system interact, how they affect us, and how we affect them is crucial for our survival (MOE New Zealand, 2012).

Moreover, we are currently faced with various disasters, either caused by nature itself (natural disasters) or by humans (man-made disasters), such as earthquakes, volcanic eruptions, tsunamis, and climate change. A better understanding of earth and space science can enhance comprehension of how disasters occur and knowledge and awareness of disaster risk reduction.

Earth Observations (EO) and space-based technologies have played a crucial role in providing relevant information to support decision-making in reducing risk and vulnerability and addressing the underlying disaster risk factors. For example, Earth observation datasets collected over more than three decades have contributed to tracking environmental changes, particularly environmental degradation worldwide (United Nations on Disaster Risk Reduction, 2015).

In response to this challenge, SEAMEO QITEP in Science (SEAQIS), as a Centre that focuses on improving the quality of science education, has developed an approach to promote Earth and Space Science Education since 2009 in collaboration with many institutions. By conducting Earth and Space Science training, teachers are expected to develop their knowledge and skills in managing classroom activities related to earth and space science. The training course, "Training Course on Earth and Space Science," is a regular training through face-to-face sessions organized by SEAMEO QITEP in Science related to the fundamentals of Earth science, Atmosphere, Space, Disaster Risk Reduction, and how to implement them in classroom learning. This training is attended by science teachers, especially those specializing in Physics and Geography, from SEAMEO member countries.

B. Learning Objectives

After the training, participants should be able to:

- 1. describing the layers of the Earth and the process of rock formation;
- 2. demonstrating how tectonic plates are moved and how the Earth's surface is formed;
- 3. analysing the factors affecting weather and climate change;
- 4. describing the solar system and its impact on life on Earth;
- 5. developing interactive learning related to earth and space Science through simple activities; and
- 6. enhancing awareness and vulnerability to disaster risk reduction.

C. Activity Details

This training is divided into three stages with the following details:

| Stage | Activity Description |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Preparation | Development of training programme activities Participant selection Determination and coordination with resource persons and teachers Preparation of training materials |
| Implementation | On-site for 6-7 days, 50 lesson hours 30 science and/or physics teachers member states of SEAMEO countries Methods: lecture, discussion, individual & group assignment, visit, hands-on activity, and presentation |
| Evaluation and Report | Activity evaluationReport drafting |

D. Timeline

This activity will be carried out according to the timeline in the following table:

| | | | | | | | | | | | S | che | dule | | | | | | | | | | i. | |
|-----------------------------------------------------------------|--------------|---|----------|---|---|----------|---|---|---------|---|---|-----|---------|---|---|----------|---|---|---|------------|---|---|-------------------------------------------------|---------|
| Step | Duratio n | 1 | Feb 2 | 4 | 1 | lar 3 | 4 | 1 | pr 3 | 4 | 1 | | Ma 3 | 5 | 1 | Jun ! | 4 | 1 | 2 | Ju 3 | 5 | 1 | A1 2 | 1g 3 |
| Programme Development | 2 weeks | | | | | | | | | | | | | | | | | | | | | | | |
| Selection Announcement | 2 weeks | | | | | | | | | | | | | | | | | | | | | | | |
| Participant Selection | 18 weeks | | | | | | | | | | | | | | | | | | | | | | | |
| Determination and Coordination with Resource Person | 14 weeks | | | | | | | | | | | | | | | | | | | Annibus co | | | | |
| Preparation of Training Materials | 7 weeks | | | | | | | | | | | | | | | | | | | | | | and the characters of the same and the same and | |
| Final Technical Preparations and Visit Certainty | 2 weeks | | | | | | | | | | | | | | | | | | | | | | | |
| Programme | 1 week | | | | | | | | | | | | | | | | | | | | | | | |

| | | | Schedule | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--------------|-----|----------|---|------------|---|---|------------|---|---------------------------------------|---|--------------|---|---|---|-----|---|---|---|-----|---|---|---|---|----|---|---|---|-----|
| Step | Duratio n | | Feb | | | | M | ar | | | А | or | | | | May | | | | Jui | 1 | | | | Ju | | | | Aug |
| | | 111 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 5 | 1 | 2 3 |
| Implementation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Report drafting | 2 weeks | | | | o i Hanner | | | no oriente | | e e e e e e e e e e e e e e e e e e e | | b A 1 | | | | | | | | | | | | | | | | | |

E. Programme Structure/Materials

The training activity is generally correlated with earth-related topics (earth science, meteorology), space-related subjects (space science), disaster risk reduction (DRR), as well as issues and technological developments supporting Earth and space learning in education. The material plan, resource persons, and tentative schedule for this activity are as follows:

| No | Course Subject | Lesson Hours | Potential Resource Person |
|----|--------------------------------------------------------------------|-----------------|-------------------------------------------------------------------------------|
| 1 | Current trends and issues in Earth and space learning (Online) | 2 | BRISECC Team |
| 2 | Earth Science (The Earth's interior and Tectonic plates) | 3 | Prof. Ir. Wahyu Srigutomo, S.Si., M.Si., Ph.D. / Prof. Satria Bijaksana |
| 3 | Meteorology (Earth's Weather and Climate) | 3 | Dr. Judhistira Aria Utama, M.Si. and team |
| 4 | Space Science (Solar System) | 3 | Dr. Judhistira Aria Utama, M.Si. and team |
| 5 | Disaster Risk Reduction (DRR) | 5 | Dr. Irwan Meilano, S.T., M.Sc. |
| 6 | Digital learning media in Earth and space topic (Online) | 5 | METAEDU Team |
| 7 | Implementation of Earth and Space Science in Classroom Activity | 6 | Laboratory IPBA UPI |
| 8 | Observation of Earth and Space Phenomenon | 6 | Geology Museum, Bosscha Observatory |
| 9 | Innovation/Country Report on Earth and Space Science | 4 | Participants report |
| 10 | Developing Earth and Space Science Lesson Plan and Resources | 5 | Participants Task |
| 11 | Cultural Exchanges and Sharing among SEAMEO Countries Participants | 3 | Participants Cultural Performance |
| 12 | Traditional Heritages and Cultural Performance | 3 | Saung Angklung Udjo |

F. Team

The teams in this activity are as follows:

1. Resource Persons : 5 people

2. Facilitators : 4 people

3. Committee : 3 people

G. Participants

The criteria for participants in this activity are as follows:

- 1. Junior High School Science, High School Physics/Geography teacher;
- 2. Originating from a SEAMEO member country; and
- 3. the number of participants is 30, consisting of 20 individuals from Indonesia and 10 representatives of other SEAMEO member countries.

H. Activity Outcomes

The outcomes of this activity are:

- 1. increasing the participants' insight regarding issues related to earth and space topics and understanding disaster mitigation;
- 2. enhancing participants' content knowledge regarding earth and space science; and
- 3. developing training products to support the implementation of space-earth science and disaster management in the classroom.

Concept Note

Training Course on Science Classroom Supervision

A. Rationale

One of the competencies that school principals and school supervisors should possess is academic supervision. Through academic supervision activities, it is expected that school principals or supervisors can provide services, guidance, and assistance to enhance the competencies of their teachers, such as in instructional and classroom management. Well-planned and prepared supervision will help teachers develop their professionalism and improve the effectiveness of the learning process in classrooms. Additionally, effective school leadership is the key to large and sustainable education reforms. For a considerable amount of time, educators have believed that school principals must be instructional leaders to be effective leaders for continuous innovation (Fullan, 2002).

Instructional leadership is an educational leadership approach that emphasizes the role of the school principal in promoting and supporting effective teaching and learning practices in school. The concept revolves around the idea that school leaders played a crucial role in shaping and improving the quality of learning and student outcomes. Fullan (2002) explains that the principal's instructional leadership is vital in the process of enhancing the quality of student learning. Furthermore, Fullan (2002) stated that to ensure deeper learning, encourage problem-solving and critical thinking skills, develop and guide highly motivated and engaged learners, the mobilization of energy and capacity of teachers are required. In turn, to mobilize teachers, the working conditions for teachers must be improved. Therefore, a leader capable of creating fundamental transformations in the school's learning culture is crucial.

Based on the new direction in academic supervision practices, particularly in instructional leadership as described above, SEAMEO QITEP in Science will conduct a Classroom Science Supervision Training: Learning Leadership for School Principals and School Supervisors. This training is expected to enhance the competencies of school principals and school supervisors in implementing instructional leadership in their respective schools. Through this training, school principals and supervisors will gain new insights to improve the quality of teacher school performances.

B. Objectives

The objectives of the Training Course on Science Classroom Supervision enable participants to:

- 1. Explain trends and issues in global science education.
- 2. Explain the nature of science and its implementation in science learning.
- 3. Explain STEM learning as an approach in science education.

- 4. Explain the new paradigm of educational supervision practices.
- 5. Explain the essential concepts of instructional leadership to enhance the quality of science teaching and learning.
- 6. Develop a science learning supervision program based on instructional leadership concepts to improve the quality of science learning.

C. Participants

The target participants of this training are school principals from Prima Junior high schools which come from SEAMEO member countries (Brunei Darussalam, Cambodia, Indonesia, Malaysia, Myanmar, Lao, Philippines, Singapore, Timor Leste, Thailand, Vietnam).

D. Date and Training Mode

The training course will be conducted **offline** from 04 to 10 August 2024. The venue of the programme is in Bandung, West Java, Indonesia.

E. Course Subjects

- 1. Trends and Issues on Global Science Education
- 2. SEAQIS Program
- 3. Country report on instructional leadership
- 4. Nature of Science and its implementation in science learning.
- 5. STEM Learning
- 6. Science Classroom Supervision
- 7. Instructional leadership

F. Scope of Subject

| No | Course subject | Lesson hours | Learning Objective | Scope of Contents |
|----|-----------------------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| 1 | Trends and Issues on Global Science Education | 2 | To explain trends and issues in global science education | Revolution industry 21st Century Skills Trend and Issues in Science Education The characteristics of Generation Z |
| 2 | SEAQIS Programme | 1 | To understand SEAQIS Program | SEAQIS Programme |
| 3 | Country Report on Instructional Leadership | 6 | To disseminate the implementation of science classroom supervision instructional leadership in school | Country Report on Supervision/Instructional Leadership |

| No | Course subject | Lesson hours | Learning Objective | Scope of Contents |
|----|------------------------------------------------------------------------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 4 | Nature of Science and its implementation in science learning. | 6 | To explain the nature of science and its implementation in science learning | Nature of science Implementation science learning |
| 5 | STEM Learning | 6 | To explain STEM learning as an approach in science education. | Characteristics of STEM learning Implementation of STEM learning in classroom |
| 6 | Science Classroom Supervision | 6 | To explain the new paradigm of educational supervision practices. | New paradigm of supervision Implementation of Science classroom supervision |
| 7 | Instructional leadership | 13 | To explain the essential concepts of instructional leadership to enhance the quality of science teaching and learning. Develop a science learning supervision program based on instructional leadership concepts to improve the quality of science learning. | Instructional leadership principals Strategy to implement instructional leadership |
| 8 | Evaluation | 1 | To evaluate the implementation of training course | Evaluation |
| 9 | Follow-up action | 1 | To plan the follow-up action | Follow up action |
| 10 | Excursion | 8 | | |



SEAMEO QITEP in Science's Regional Trainings 2024

4-10 August 2024

Bandung City, West Java, Indonesia

ADMINISTRATIVE NOTES

As of 06 March 2024

VENUE AND ACCOMMODATION

The training will take place at Bandung City, West Java, Indonesia. SEAMEO QITEP in Science will provide accommodation for all participants from 04 August 2024 (check-in date) to 10 August 2024 (check-out date). Please be informed that any additional costs incurred (laundry charges, telephone calls or other requested services) are the responsibility of the concerned participants, and therefore any bills (for additional costs) will have to be settled by the participants with the hotel before their departure. Any extra night will be at the participants' account.

SEAMEO QITEP in Science will make accommodation reservation on participants' behalf. Breakfast and Wi-Fi are included in the room.

AIRPORT AND HOTEL TRANSFER

SEAMEO QITEP in Science will provide all participants with airport transfer from the nearest airport to the venue. It is strongly recommended that all participants take flights to **Soekarto-Hatta International Airport (IATA: CGK)**.

REIMBURSEMENT OF AIR TICKET

SEAMEO QITEP in Science will cover the costs of return-international air tickets (economy class fare) of the participants. The tickets are highly suggested to be purchased from the airline or online ticket booking website. Please note that we will collect the electronic ticket, payment receipt, and your boarding passes in order to proceed with the reimbursement upon the arrival.

The maximum price of the round-trip flight tickets that will be reimbursed is as follows.

| Country | City | Maximum Ticket Price in USD | Maximum Ticket Price in IDR |
|-------------------|---------------------|-----------------------------|-----------------------------|
| Brunei Darussalam | Bandar Seri Begawan | USD 872 | IDR 13,785,000 |

| Country | City | Maximum Ticket Price in USD | Maximum Ticket Price in IDR |
|-------------|--------------|-----------------------------|-----------------------------|
| Cambodia | Phnom Penh | USD 1,075 | IDR 17,000,000 |
| Lao PDR | Vientiane | USD 949 | IDR 15,000,000 |
| Indonesia | Jakarta | - | IDR 500.000 |
| Malaysia | Kuala Lumpur | USD 492 | IDR 7.775.000 |
| Myanmar | Yangon | USD 1,053 | IDR 15,584,400 |
| Philippines | Manila | USD 949 | IDR 15,000,000 |
| Singapore | Singapore | USD 382 | IDR 6,045,000 |
| Thailand | Bangkok | USD 633 | IDR 10,000,000 |
| Timor-Leste | Dili | USD 664 | IDR 10,500,000 |
| Vietnam | Hanoi | USD 1,075 | IDR 17,000,000 |

For the reimbursements, kindly send the following documents to secretariat@qitepinscience.org by **22 July 2024**.

- 1. return-electronic ticket;
- 2. payment receipt;
- 3. Official Travel Form; and
- 4. nomination letter from the authorised person in the Ministry of Education or institution.

Should you need any assistance in booking the flight ticket, please do not hesitate to contact us.

The reimbursements of return-international air tickets will be given on the last day of the training in cash, in Indonesian Rupiah (IDR) with exchange rate USD 1 = IDR 15,800.

All participants must also bring **two copies** of original Official Travel Form that have been signed and stamped by the authorised person in the Ministry of Education or institution once they arrive at the training venue. Please note that the signature and stamp are only in the ticked parts/columns as in the provided example of Official Travel Form.

MEALS

Meals and refreshments have been arranged for all participants during the training. Meals will be started to be served at lunch time on the first day of the mentioned dates.