Organisers

Southeast Asian Ministers of Education Organization

MEXT MINISTRY OF EDUCATION, CULTURE, SPORTS, SCIENCE AND TECHNOLOGY-JAPAN

In partnership with

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2024 SEAMEO-Japan ESD Award

Theme: Promoting Lifelong STEM Learning through Community Engagement

SUBMISSION FORM

The submission deadline is 15 August 2024
Full Information: https://link.seameo.org/esd2024

- To participate in the 2024 SEAMEO-Japan ESD Award, please submit the information of your school's programme on "Promoting Lifelong STEM Learning through Community Engagement" by using this template of Submission Form on or before 15 August 2024.
- This **Submission Form** can be downloaded from the SEAMEO website: https://link.seameo.org/esd2024 or request through email: seameojapan.award@seameo.org
- The **guidelines for submission** and the **judging criteria** are detailed in page 8-10 of this document.
- **How to Submit the Entry**: Please send the completed submission form of 2024 SEAMEO-Japan ESD Award and a link of 3-minute video clip together with supporting documents to the following Google Form:

https://link.seameo.org/ESD2024/Submission

- Important Note: to align with the ESD practices and to save the environment and energy, the Committee **WILL NOT** accept the entry in hard/printed copies.
- For more information, please visit: https://link.seameo.org/esd2024 or contact the SEAMEO Secretariat's email: seameojapan.award@seameo.org or Tel. +66-2391-0144.

PART I: DETAILS OF YOUR SCHOOL

1. Name of your school Soongyangwittayaprachasan
2. Full address 201 m.7 Koomuang Muangsuang Roi-Et.....
3. Postcode 45220 4. Country Thailand
5. School's telephone number (country code+city code+telephone number) +66956059303
6. School's Email Address tong.benjamas@gmail.com
7. School website (if available)

8. Approximate number of teachers participated in this programme 12

9. Approximate number of students participated in this programme 3

PART II: INFORMATION ABOUT THE SCHOOL'S PROGRAMME

The information of part II from no.1 to 14 should not be over five (5) pages long of A4 in total. The information should be written in **Times New Roman/Calibri font, font size 11**.

1. Title of the school's programme

Sustainable Wellness Living through Community Innovation Project," HerbDryPro Invention"

2. Summary of the programme (maximum of 300 words)

The "Sustainable Wellness Living through Community Innovation Project," featuring the HerbDryPro Invention, epitomizes effective lifelong STEM learning through community engagement. This project, integral to the school's curriculum, aligns with United Nations Sustainable Development Goals (SDGs), specifically SDG 3 (Good Health and Well-being), SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), and SDG 15 (Life on Land).

Lifelong STEM learning fosters ongoing curiosity in science, technology, engineering, and mathematics by linking theoretical knowledge with real-world applications. The HerbDryPro project illustrates this by integrating STEM education with practical problem-solving within the community. Students begin by surveying local herbs, studying their properties, and engaging with local experts to blend traditional knowledge with modern science, supporting SDG 15 through the preservation of biodiversity.

The project advances with students researching herb chemistry and developing the HerbDryPro, a solar-powered herb dehydration device. This phase emphasizes engineering and technology, enhancing students' problem-solving skills while addressing local needs. The use of solar energy promotes sustainable practices, aligning with SDG 11.

Community engagement is pivotal, involving workshops and demonstrations to share knowledge and improve communication skills. This interaction not only reinforces the relevance of STEM education but also contributes to SDG 3 by enhancing community health through sustainable herbal practices.

Overall, the project exemplifies how schools can lead in STEM education by engaging with the community, enabling students to become innovators and leaders while advancing sustainability and health objectives.

3. Objectives/goals of the school's programme

1. **Foster Lifelong STEM Learning**: Develop STEM proficiency through practical, real-world applications.
2. **Promote Community Engagement**: Involve the community in surveys, workshops, and demonstrations to enhance STEM education.
3. **Advance Health and Sustainability**: Improve health using local herbs and promote sustainability with the solar-powered HerbDryPro.
4. **Bridge Traditional and Modern Knowledge**: Combine traditional herbal knowledge with modern science and technology to preserve biodiversity and advance STEM.
5. **Enhance Problem-Solving and Communication Skills**: Provide hands-on experience with the HerbDryPro to develop problem-solving skills and teach effective communication of STEM concepts.

4. Period of the time when the programme has been started

School Year 2023-2026

5. Activities (strategies/activities of implementation, and brief information of each activity)

1. **Herb Research**: Students surveyed local herbs and collaborated with local experts to document traditional knowledge.
2. **Design and Development**: They designed and tested the HerbDryPro, a solar-powered herb dehydration device.
3. **Community Engagement**: Students hosted workshops and demonstrations to share their findings and the use of the HerbDryPro with the community.
4. **Educational Outreach**: They created materials and presentations to educate others about herbs and sustainability.
5. **Sustainability Focus**: The project promoted sustainable practices and supported local biodiversity.

6. Teaching and learning approaches/strategies that the school has integrated into the programme

1. **Project-Based Learning (PBL)**: Students work on real-world projects like the HerbDryPro Invention, applying **STEM** concepts to practical problems.
2. **Inquiry-Based Learning**: Students conduct surveys on local herbs, fostering scientific inquiry and critical thinking through research and data analysis.
3. **Community Collaboration**: The program involves local wisdom keepers and health centers, bridging traditional knowledge with modern science and enhancing learning through real-world connections.
4. **Hands-On Activities**: Students design and build the HerbDryPro device, applying theoretical knowledge in practical contexts, which enhances understanding and problem-solving skills.
5. **Sustainable Practices**: The project emphasizes the use of solar energy, teaching students about renewable energy and aligning with sustainability goals, promoting real-world applications of **STEM** knowledge.

7. Engagement with the community and sharing of school practices to the community

Engagement with the Community

1. **Collaborative Projects:** Schools partner with local organizations and experts on community-relevant projects, like integrating traditional herbal knowledge into STEM practices.
2. **Workshops and Demonstrations:** Organizing events where students present their projects and engage with the community, such as demonstrating the HerbDryPro device.
3. **Community Involvement in Learning:** Inviting local experts to contribute to educational activities, enhancing students' learning experiences.
4. **Feedback and Adaptation:** Gathering community feedback to improve projects, such as refining the HerbDryPro based on input from local users.

Sharing School Practices with the Community

1. **Public Presentations:** Showcasing school projects at community events to highlight their impact, like presenting the HerbDryPro at local fairs.
2. **Social Media and Online Platforms:** Using digital tools to share project updates and successes, such as posting about the HerbDryPro on social media.
3. **Educational Materials and Resources:** Creating materials to explain and distribute information about school projects, including guides on using the HerbDryPro.
4. **Community-Based Research and Publications:** Publishing findings or case studies on successful community collaborations in local media or academic journals.
5. **Training and Support:** Offering training for community members to implement or benefit from school projects, such as instructing locals on the HerbDryPro's use.

8. Monitoring and evaluation mechanisms

1.Regular Progress Reports:

- **Frequency:** Monthly
- **Content:** Updates on project milestones, activities, challenges, and overall progress. This ensures that the project stays on track and allows for timely adjustments.

2.Impact Assessments:

- **Metrics:** Evaluate the effectiveness of the HerbDryPro on community health, educational outcomes, and sustainability.
- **Methods:** Surveys, interviews, and data analysis to measure improvements and impacts, helping to determine the success and areas for improvement.

3.Feedback Analysis:

- **Sources:** Collect feedback from students, teachers, and community members through surveys and interviews.
- **Purpose:** Analyze feedback to assess engagement, satisfaction, and effectiveness, and to identify strengths and areas needing enhancement.

9. Measurable achievement of the school's programme to students, teachers, parents, and wider community

1. Student Learning and Skill Development:
- **Academic and Practical Skills Improvement:** Increased understanding of STEM concepts and practical skills, such as creating the HerbDryPro device, measured through assessments, project evaluations, and practical applications.
- **Community Engagement:** Active participation in community workshops and effective communication of STEM concepts, with feedback from both students and community members.

2. Teacher Impact and Professional Growth:
- **Enhanced Teaching Practices:** Improved integration of STEM and community engagement in the curriculum, assessed through peer reviews, professional development, and successful project implementation.
- **Positive Student Outcomes:** Notable improvements in student performance and feedback related to the HerbDryPro project.

3. Community Health and Sustainability Benefits:
- **Health and Environmental Impact:** Improved community health outcomes and adoption of sustainable practices, tracked through local health data, feedback from community events, and increased use of the HerbDryPro device.
- **Innovation and Outreach:** Effective community workshops and demonstrations, with measurable attendance, participant satisfaction, and impact on local sustainability initiatives.

10. Plan for future

1.Local Expansion and Resource Management:
- **Extend to Nearby Schools**: Share the project with nearby schools and leverage local resources for support and sustainability.

2.Curriculum Integration and Practical Training:
- **Update Curriculum**: Incorporate the project into the STEM curriculum and provide training for effective use.

3.Community Engagement and Impact Measurement:
- **Host Local Events**: Organize events to showcase the project and engage the community.
- **Monitor Impact**: Track outcomes and share results to demonstrate benefits and guide improvements.

11. Interrelationship of the school's programme with other Sustainable Development Goals (SDGs) (Please refer to page 2 in the Information Note or https://sustainabledevelopment.un.org/sdgs)

1. **SDG 6** (Clean Water and Sanitation): Future phases could investigate herbs with water purification properties, integrating STEM education with practical water quality improvements.
2. **SDG 12** (Responsible Consumption and Production): The project might focus on sustainable herb production and waste reduction strategies.
3. **SDG 13** (Climate Action): Building on its use of solar energy, the project can explore how climate change affects local herbs and develop mitigation strategies.
4. **SDG 17** (Partnerships for the Goals): Strengthening partnerships with local and international organizations can enhance resources and impact.
5. **SDG 8** (Decent Work and Economic Growth): The project can promote student entrepreneurship by creating opportunities to commercialize their innovations.
6. **SDG 7** (Affordable and Clean Energy): Expanding on the solar-powered aspect, students could develop other renewable energy solutions.

12. Link(s) to the information of school's programme in social media platforms such as facebook, website, youtube

Facebook

13. Photos related to the activity/programme (Maximum of five (5) photos with captions in English)

Empathize Stage: Students interview local herb experts and community members to understand their needs and challenges, ensuring that the HerbDryPro device addresses real-world problems and enhances well-being.

Photo 2

Define Stage: Students engage in research and design, integrating local knowledge and modern technology to develop the HerbDryPro device.

Photo 3

Ideate Stage: Students brainstorm and design innovative solutions during the ideate stage of the HerbDryPro project, exploring creative approaches to integrate STEM principles with community needs.

Photo 4

Prototype Stage: Students test the prototype of the HerbDryPro device, applying design thinking to create a solar-powered herb dehydrator.

Photo 5

Test Stage: This stage emphasizes iterative problem-solving and practical application of STEM skills in real-world scenarios, enhancing both their engineering expertise and community impact.