Organisers

Southeast Asian Ministers of Education Organization

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

In partnership with

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2023 SEAMEO-Japan ESD Award

Theme: Promoting Environmental Education through Utilizing Renewable Energy

SUBMISSION FORM

The submission deadline is 15 August 2023
Full Information: https://link.seameo.org/2023SEAMEOJapanESDAward

- To participate in the 2023 SEAMEO-Japan ESD Award, please submit the information of your school's programme on "Promoting Environmental Education through Utilizing Renewable Energy" by using this template of Submission Form on or before 15 August 2023.
- The **digital format of this Submission Form** can be downloaded from the SEAMEO website: https://link.seameo.org/2023SEAMEOJapanESDAward 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 2023 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/2023SEAMEOJapanESDAward/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.
- More information, please visit: https://link.seameo.org/2023SEAMEOJapanESDAward 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: **SM ST MICHAEL, PENAMPANG**
2. Full address: P.O Box 66, Penampang, Sabah
3. Postcode: 89507 4. Country: Malaysia
5. School's telephone number (country code+city code+telephone number): +6088711451
6. School's Email Address: **xfe4117@moe.edu.my**
7. School website (if available): https://sites.google.com/moe-dl.edu.my/smsmlestari/

8. Approximate number of teachers participated in this programme: 66

9. Approximate number of students participated in this programme: 907

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

St Michael SE-SAME-RE Programme: St Michael Saves Energy, Saves Money and Earth by using Renewable Energy.

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

SM St. Michael, Penampang has implemented the St Michael SE-SAME-RE Programme to educate children about the significance of renewable energy and environmental conservation. This program involves all 66 teachers, 907 students, parents, and the local community. It aims to teach them how to contribute towards a greener world through small actions. The program consists of 13 planned activities.

One of the activities is installing solar and photovoltaic usage in schools to educate students on reducing their electrical consumption. We also help the community nearby by installing two (2) solar-powered streetlights on the suspension bridge connecting two villages, which most of our students use to go home, especially after school in the evening.

Making candles from used cooking oil (biomass) is another activity to educate the public on the importance of caring for our environment besides producing light directly from their kitchen. Simultaneously, it was implemented on a larger scale and achieved a record for 'The most number of candles made from used cooking oil' in the Malaysia Book of Records.

In the Science subject, students were introduced to a solar cooking activity. This allowed them to learn about alternative methods of cooking using renewable energy. The activity also encouraged students to be creative and gain practical knowledge that could be applied in real-life situations.

We have directly addressed SDG 7 (affordable and clean energy), boosting students' awareness of energy-related challenges worldwide. Hopefully, our small actions can benefit the environment and educate everyone on the importance of renewable energy.

3. Objectives/goals of the school's programme

Through the programme we aim to:
1. educate the students, teachers and community on the importance of using renewable energy in a long run.
2. enhance students' critical thinking and problem-solving skills related to renewable energy issues.
3. inculcate the culture of using renewable energy and apply them in their daily life.
4. save energy, save money and earth by reducing consumption knowledgeably.

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

From 2019 to 2023

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

1. Making candles from used cooking oil (MBOR)

Making candles from used cooking oil (biomass) is an activity conducted by our school to help the environment. As we know that it's still a long way to go before we can really educate the public on the importance of taking care of our environment for our future generations thus we are keen on taking this small step to begin with. We get our used cooking oil supply from the school canteen as well as through Parents-teachers Association. We do it in a bigger scale and managed to get entry in the Malaysia Book of Records as 'The Most Number of Candle Made From Used Cooking Oil'. We also bring this project to the

community through our outreach programme as to educate them how to have source of light in a simple way directly from their kitchen.

2. Solar cooking activity

Solar cooking activity is done in class through science subject. This is to make students aware that there are other ways of cooking using renewable energy consumption. Once students are immersed and familiar with it, they are encouraged to participate in a solar cooking competition in school and district level. Through this, they were able to show their creativity and it also equipped them with knowledge which they can apply in their real-life situation.

3. Green City project

This is a project conducted by students in their respective subject such as Science and Technology and design (RBT). Students were put in groups and come up with a green city prototype. They presented their invention/ prototype in a showcase to other students. This enable them to share and educate others on Green City benefits and advantages and also how it can help to protect the environment. A competition in a school level is conducted and the winner will represent the school in a Green City renewable technology competition in higher level. One of the criteria in this competition is students are required to incorporate green design and technology such as solar panel, rain water harvesting, vertical farming and electricity power source from renewable energy (wind, hydroelectric and biomass). Each of the building also uses the minimum amount of electricity by installing glass window panel and natural lighting.

4. Shell STEM Nxplorers programme

The global Shell STEM programme NXplorers uses a combination of systems thinking, scenario planning and a theory of change methodology to show young people how to deal with complexity. Shell Nxplorers Team of students and teachers are required to attend a Make-a-thon Session where they will share their ideas and research, build their prototypes, and pitch their prototypes. Every year our school team is required to address a real-life “NXplorers Nexus of Food-Water-Energy” challenge incorporating technology solutions by inventing Arduino projects with an integrated development environment (IDE), AI (Artificial Intelligence) with the Internet of Things (IoT) projects, Android App Design and 3D printing into the solution using the NXthinking tools in Explore, Create and Change. The students project has the solutions that contributes towards energy transition and net zero emission as well as any of the 17 United Nation Sustainable Development Goals (SDGs).

Throughout this programme, our school has managed to become the State Champion thrice. They invented a prototype – ‘Tower of Power’ that combines all renewable energy to produce electricity, flood detector, an ultrasonic sensor to detect the level of trash, a piezo element to generate electricity and a solar-powered flood warning system.

This Shell Nxplorers Programme sharpen students’ skill in problem-solving on how to overcome complex issues faced by the world concerning the environment. It helps students on their communication skill as well as build their self-confidence through presentation and questions and answer session. Lastly, this is also a platform for them to enhance their critical thinking skill in line with the Ministry of Education aspiration.

5. Air Quality Monitoring in Schools (AQUAMS) Project

The "Air Quality Monitoring in Schools" (AQUAMS) is a collaborative initiative between the Environment Protection Department Sabah and UNICEF. Our school is one of the five chosen pilot schools for this project. Equipped with solar-powered Air Quality Monitoring devices, we receive real-time air quality data within our school premises. Additionally, two of our classes are participating in educational activities organised by AQUAMS. This project raises awareness about air quality and underscores the importance of environmental education in our curriculum.

6. Vegetable garden (NFT) powered by solar panel

Our school has been involved in many programmes related to agriculture. One of our recent additions is the Nutrient Film Technique (NFT) system. It was introduced and given to us by the Sabah Agriculture Department as we were selected to join the Urban farming programme they conducted. It was a conventional system, with the pump being powered by electricity. Since the NFT system depends solely on an electrical supply to pump the water to deliver the nutrients to the plants 24/7, electrical consumption will increase. Therefore, we improvised it by changing the pump to solar powered to reduce electricity usage.

7. Solar-powered lights in the parking lot

We introduce and install solar and photovoltaic usage in school to inform students of other means of getting electrical supplies. This also educates them on reducing their electrical consumption and billing. Four fluorescent lamps power our school parking lot and are used daily. All the lights are turned on from 6.30 pm until 6.00 am the following day. With such long hours of electricity usage, much energy consumption is needed to light up the parking lot. However, by applying our knowledge of saving energy and renewing energy, we have changed all the lights to solar-powered spotlights thus reducing the school electricity bills significantly.

8. School 'Gardens of Eden'

There are eight gardens throughout the school which function as natural coolants to the school. The plants planted are chosen based on their species and weather endurance. When our school is cooler, the usage of air conditioners and fans can be reduced, indirectly decreasing our electricity billing. At night some of the gardens are lit with lights powered by electricity. So, to reduce energy consumption, we have changed all the lighting to solar-powered which also beautifies our school landscape with various types of solar-powered lighting.

9. Community solar project

We care about our community, especially those directly involved with us. To show our responsibility as a caring school, we help the nearby village by installing two (2) solar-powered streetlights on the bridge connecting Dabak and Nampasan village, as most of our students use this bridge to reach their homes safely, especially after school in the evening.

10. Outreach programme

We made a few outreach programs outside of school to spread awareness and inspire our surrounding communities. Recently, we have organised three (3) outreach programmes with three districts, namely Marahang, Manggatal, Babagon, Penampang and Kg. Rugading, Tambunan. During the programme, we conducted activities such as tree planting, sharing, and talks by various agencies on the environment, workshops, candle making, treasure hunts and colouring competitions. We empower our students to teach and explain to the communities about composting and how to make their candles to save energy and money.

11. Community Solar Donation project

One of the challenges of our surrounding communities is difficulty in purchasing solar-powered lights due to a lack of funds. Thus, we help them by organising a fundraising activity called "Bazaarestari". It is an activity where students use their own capital to sell food, drinks, plants, second-hand materials, seedlings, and some creatively organise games and provide services. 100% of the earnings from this activity are donated to the school to buy the solar lights for the communities.

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

1. Incorporated in the school syllabus (PBL) - twice a year (Apr-Jun) / (Sept-Nov)

Considering the objective in the Standard Based Curriculum for Secondary Schools (KSSM) for Form 1 to Form 5 (SPM) (as suggested in Malaysia Education Blueprint 2013-2025), Project-based learning (PBL) is an alternative to conventional teaching methods for students to learn through real-world issues. Our school implements PBL twice yearly; April – Jun and September - November for every subject. In Science, a specific theme is related to Energy consumption: Theme 3 Energy and Sustainability in Life. The Solar Cooker and Greenhouse Building are examples of the projects. This activity can enhance the students' knowledge by connecting with daily events and applying scientific knowledge.

2. Public speaking during school assembly / students' sharing- Every Tuesday (afternoon session) / Friday (morning session)

Considering the objective in the Standard Based Curriculum for Secondary Schools (KSSM) for Form 1 to Form 5 (SPM) (as suggested in Malaysia Education Blueprint 2013-2025), Problem-based learning (PBL) is an alternative to conventional teaching methods for students to learn through real-world issues. Our school implements PBL twice yearly; April – Jun and September - November for every subject. In Science, a specific theme is related to Energy consumption: Theme 3 Energy and Sustainability in Life. The Solar Cooker and Greenhouse Building are examples of the projects. This activity can enhance the students' knowledge by connecting with daily events and applying scientific knowledge.

3. Pledge writing - during Earth day and Environmental day / co-curricular activity

It is essential to raise awareness of environmental education on renewable energy among the young generation. Earth Day and Environmental Day are celebrated in school, where students write their pledges and everyone recites the official school environment pledge during the assembly.

4. Poster competition - thematic month

It is essential to raise awareness of environmental education on renewable energy among the young generation. Earth Day and Environmental Day are celebrated in school, where the school organised a poster competition based on the theme given.

5. Cross curriculum in Science Chapter 4 - during Teaching & Learning in class

To teach environmental education on renewable energy, the curriculum has included renewable energy education in Science and Geography Subjects. Both subjects focus on the use of energy, energy forms, and energy sources, namely, non-renewable (oil, coal, natural gas, and nuclear energy) and renewable (hydroelectric, solar energy, wind energy, wave energy, geothermal energy), energy transfer and transformation, energy saving and basic electric.

Students will be exposed to basic knowledge and energy concepts.

In the lower secondary school, the topic of energy is introduced in Form 1 Science. In Form 3, students will learn about energy resources in Malaysia and other countries. In Malaysia, energy resources, such as oil, coal, natural gas, hydroelectric, solar energy, biomass energy and nuclear energy, are included where students learn how renewable energy produces electricity. In the subject of Geography in Form 5 and Form 3, students are also exposed to examples of energy resources in other countries; solar energy in Japan and China, wave energy in France, tidal energy in China, wind energy in the Netherlands, biomass energy in Philippines and India and geothermal energy in Iceland.

The topic of renewable energy education is further deliberated at upper-secondary for Form 4 Science Stream students in Physics subject with more mathematical and scientific explanation. The generation and transmission of electricity systems from non-renewable and renewable resources (engineering perspective) are learned in Form 5.

From the school's textbook curriculum, learning about renewable energy, including hydroelectric, solar, wind, wave, tidal, biomass, geothermal and nuclear energy, is an essential element in sustainable energy education. At the school level, in Form 5 chemistry subject, students will learn about electrolysis, in which electricity is converted into chemical energy.

In Geography Form 5, basic hydrogen production from water is also a renewable energy source. However, this level's knowledge on hydrogen energy and fuel cells remains limited. This issue should be questioned as research on hydrogen energy and fuel cells and have long been conducted by researchers in Malaysia and other countries worldwide.

Students have a strong knowledge foundation about renewable energy in their secondary school. Developing the fundamental students' awareness of Renewable Energy is crucial in science and geography. Students were exposed to the importance of renewable energy, potential, and future development.

A solid learning strategy has been applied to enhance students' interest in Science, Technology, Engineering and Mathematics (STEM) education. The process is also used in energy education, where the instruction should approach integrated understanding to enhance students' capability to make sense of the environment and daily life phenomena in energy-related learning in the future.

6. Thematic month (Environmental) Bulan alam sekitar - April - June

Thematic Month is implemented to create and increase students' awareness of environmental education. Throughout the month, the school's community is in the spirit of love for the environment. The main focus during the month is educating the students on preserving and conserving the environment by utilising renewable energy in everyday life. Students will involve themselves in poster, infographics, and innovation competitions.

Environmental Month continues to motivate students to take charge of the environment and educate students to strive towards a more sustainable and resilient future through various activities such as tree planting, clean-up efforts, educational initiatives, and policy advocacy or pledges. It serves as a reminder for all that maintaining the health of our planet is crucial for both present and future generations.

7. Innovation / solar cooking - based on syllabus / competition in July

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planting, clean-up efforts, educational initiatives, and policy advocacy or pledges. It serves as a reminder for all that maintaining the health of our planet is crucial for both present and future generations.

20 groups of Form 2 and Form 4 students performed an experiment of frying eggs and their designed solar cookers under the sun.

This project which took two to four weeks, saw the students build their solar cooking utensils from recycled materials such as aluminium foil, papers, cardboard, stainless steel and a layer of glass or thick transparent plastics used to trap the heat. Some materials were recycled or bought cheaply, costing only between RM5 and RM20.

To start cooking, they need to 'track' the sun before turning the solar cookers directly towards the sun to concentrate better and absorb the sun's rays and towards the food until the food (egg) is cooked. The solar cookers would only take between four and five minutes to cook an egg and taking only took two to three minutes to boil water. This challenge can be taken further by increasing the level of difficulty in terms of food to be cooked and material to be used.

8. Composting - Throughout the year

Composting Projects have been implemented by the school throughout the year. The main purpose of composting is to educate students that compost can be converted to green energy, which is biomass energy to generate electrical energy further.

For now, our school is implementing compost fertiliser made from organic materials that are made from organic material such as leaves and kitchen waste from the canteen. Parents and community members can also contribute their organic waste and send it to the compost bin.

Composting project is being headed by the Eco-School Committee and Sustainable Garden Committee. Responsibilities are divided among committee members and scheduled during Co-curricular activities depending on their available time and interest after school.

This composting project has increased student awareness of the importance of biomass in agriculture and generating renewable energy.

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

1. Through campaign and programme

No	Community	Programme
1	Community of Marahang village, Mawaras, Bongkud, Tombongon, in Manggatal.	Collaboration in tree planting and environmental program.
2	Community of Babagon village, Notoruss, Madsiang, Kipouvo and Togudon in Penampang.	Collaboration in tree planting and environmental program.
3	Community of Rugading Pagalan village, in Tambunan.	SM ST. Michael Aqua-Hope Green project 2023
4	Community of Terawi village, in Penampang.	Collaboration in environmental programs, tree planting, and the Malaysia Book of Records.

2. Installation of solar powered street light connecting 2 villages

We help the community nearby by installing two (2) solar powered street light on their bridge connecting Dabak and Nampasan village as most of our students are using this bridge to reach their home safely especially after school in the evening.

3. Networking with other agencies and schools

No	Agencies	Programme
1	Sabah Department of Environment (JAS)	Giving lectures on the importance of environmental conservation. Help in doing demonstrations and hand-on sessions on making candles from used cooking oil to the communities during outreach programme and also provided some contributions for environmental activity prizes.
2	Sabah Environment Protection Department (EPD)	Advisor criteria for Rakan Alam Sekitarl (SERASI) Mentor. EPD also provided some contributions for environmental activity conducted with the communities.

3	MALAYSIA BOOK Of RECORD - MBOR	Participating in the Malaysian Book of Record challenge by creating materials based on the awareness of environmental conservation every year.
4	Malaysian Gas Association (MGA) & Petrosains Playsmart, Kota Kinabalu	Raising and Enhancing awareness of the importance of electricity and gas energy sources in daily life as well as promoting the practice of efficient energy use among students and educators.
5	*Kota Kinabalu Wetlands Centre (KKWC)*	Educational field trip to KKWC and mangrove planting program at Sulaman Lake Forest Reserve, Tuaran. Collaborating to organize a state-level mangrove planting competition.
6	Malaysian Nature Society (MNS)	Conducting a Water Vision program involving SM St Michael, Penampang every year.
7	Sabah Forestry Department (JPS)	Officers from the Sabah Forestry Department give lecture on the Importance of Forests. They also contribute tree saplings as part of the Greening Malaysia: 100 million Trees Planting Campaign.
8	Sabah Malaysian Nature Society	Environmental Awareness Camp and environmental talk.
9	*To Earth With Love (TEWL)*	Organising a platform for the international exchange programs in environmental conservation. Providing advice for the Sustainable Garden competition.
10	Kawanishi International Relation Association (KIRA)	*International exchanged program via webinar* on Sustainable Agriculture.
11	Community of Terawi Village	Collaboration in environmental programs, tree planting, and the Malaysia Book of Records.
12	Community of Kg Marahang, Mawaras, Bongkud, Tombongon in Manggatal District.	Collaboration in tree planting and environmental programs.
13	Community of Kg. Babagon, Notoruss, Madsiang, Kipouvo and Togudon in Penampang district.	Collaboration in tree planting and environmental programs.
14	**COCA COLA** Sdn Bhd. Malaysia	Donating the *"Water Harvesting Tank"* for school Teaching and guiding in the project of water conservation through rainwater collection at school.
15	Institut Biologi Dan Pemuliharaan (IBTP, UMS)	Inviting students and teachers of SM St. Michael to the camping Program "*Rakan Borneensis UMS*"
16	Sabah Parks	SM ST. Michael Aqua-Hope Green Project 2023

8. Monitoring and evaluation mechanisms

1. School Gardens of Eden and community solar project.

All the solar light installed around the school will be monitored weekly by teachers in charge to make sure all are functioning well. The use of solar-powered light in the garden and parking lot has reduced the school's electric bills and at the same time conserving the use of electrical energy. The use of renewable energy, in this case has helped a lot in conserving the environment.

2. Electric billings

Monitoring the electrical billing regularly to check on the billing reduction on electrical consumption. Electric bills have always been a main concern for our school. We can see a slight reduction on the billing after the installation of solar-powered lights in various parts of our school.

3. Organisation Strategic Planning (PSO) review

One of the ways to monitor the programme is by reviewing the plans and strategies we have done before in the Organisation Strategic Planning under the LESTARI/SERASI unit. It is reviewed twice a year to check on the programme progress.

4. Air Quality Monitoring in Schools (AQUAMS) Project

The school will conduct weekly checks on the Air Quality Monitoring device and will address any issues regarding the device to the organisers.

5. Vegetable garden (NFT) powered by solar panel.

For NFT we monitor it by weekly fertilization and checking the vegetable condition daily. We also make sure that the water pump is functioning well all the time. The produce we harvested after 45 days will determine the success of the programme as the water pump powered by solar.

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

1. Reduce in billing

After the installation of solar panels on the roof of St Michael's school and solar lights along the walkway, the electricity bills has shown a drastic decline. Likewise in its water bills after the rain water harvesting tanks were installed to collect rain water for the use of watering the plants around the school. Collected rain water is also used in the cisterns in students' toilets.

2. Awards and Acknowledgements

i. ASEAN Eco school awards 2019
ii. World Best school 2020
iii. Kinabalu Award 2019 - (Highest award for school leader who make a vast impact in environment protection).
iv. National champion for Water Vision Competition – 2020 and 2021
v. Listed 10 times in the Malaysia Book of Records (MBOR) for multiple activities on Protection of the environment.
vi. Champion in the state level of 'MyGeek Movement' Competition in Saving Food, Water and Energy in 2020
vii. GlobalWIIN Virtual Awards 2020-United Kingdom (Environmental Innovation Award)
viii. Environmental Friendly School Mentor Awards in 2019 and 2021
ix. Sustainable Environmental Friendly School Mentor Awards in 2020 and 2022
x. Sabah Education Innovation Excellence, (KIPS), 2019
xi. Champion in online Infographic quiz on Global Warming in conjunction with Earth Day celebration on 20-22 May 2022
xii. Champion in The National Biotechnology Case Competition 2021 (NBCC21)
xiii. 6th World Environmental Sciences Grand Award (6th WSA) – Korean Invention News 2021
xiv. The World Invention King Crown Contest In Korea (WIKC 2019) "Invention King" Korean Invention News in 2019
xv. Special Award from Taiwan
xvi. WIIPA during the 2020 Bangkok International Intellectual Property, Invention, Innovation and Technology Exposition, Thailand (IPITEx 2020)
xvii. International Conference In Innovation And Creativity (ICCI) 2020, Bangkok, Thailand

3. Exchange programme with youths of Denmark on Climate Change in 2022

26 Students of St Michael were involved in the exchange programme with youths of Denmark to discuss issues on climate change and to find the best solution teenagers can do and to contribute to both countries.

4. Students attitude and ambassador

It is undeniably seen that the students of St Michael's school have adapted and internalized the attitude of conserving energy and water in their daily lives. Turning off the lights and fans without fail every time they leave their classes has becomes a habit among the students.

Sharing their knowledge on energy conservation among their peers, to the pupils of its feeder schools as well as doing exhibitions and presentation of learning on energy conservation done outside the school.

5. Environmental Education as the ***Niche Area of the School*** as a way to maximise the involvement of the students and to inculcate love the environment awareness.

6. Benchmarking

From 2019 to 2023, St Michael, Penampang has recorded a number of 112 groups of visitors to the school who had come for benchmarking for its energy conservation programmes. Among them were groups from primary and secondary schools, various other non-educational institutions and NGOs both locally and internationally.

7. MoU

i. A few Memorandum of Understanding (MoU) were signed between St Michael's school with other organizations on both environment and energy conservations. Among them were:
ii. Aqua-Hope Green Project 2023 (Water Gravity and Environment Awareness) between St. Michael and Communities of Rugading, Pagalan, Tambunan.
iii. Malaysia Greening Project 2022 between St Michael and Communities of Marahang, Tombongon, Manggatal
iv. MoU on Environment Conservation and Awareness between St Michael and Communities of Babagon, Madsiang, Notorus dan Kipovo, and Terawi in Penampang.

8. Invitation to become speaker (students and teachers)

Both the students and teachers of St Michael's school are frequently been invited to share their knowledge on energy conservation through giving talks in other schools, government organizations as well as NGO both locally and internationally.

10. Plan for future

1. Enhancing its solar power system by adding more solar panels to the remaining 5 school blocks. This initiative not only aims to power the school through solar energy fully but also aims to reduce the school's utility bill. By doing so, the school is actively contributing to the preservation of the environment and can become an international ambassador for environmental conservation.
2. Becoming a centre of innovation that prioritizes environmental sustainability and environmentally friendly ideas. By fostering a culture of innovation, the school encourages students and staff to develop creative solutions that are in harmony with nature.
3. To generate income for environmental activities within the school, an "upcycling program" will be implemented. This program encourages students and staff to repurpose waste materials into valuable products, promoting sustainability and generating revenue.
4. To become a "one-stop" centre for environmental education. By providing comprehensive education on environmental conservation, the school equips students with the knowledge and skills necessary for sustainable living.
5. To strengthen and disseminate a culture of entrepreneurship based on environmental principles among its students. By nurturing entrepreneurial skills in an environmentally conscious context, the school prepares its students for future careers by prioritizing sustainability.
6. To foster a community that appreciates and protects nature's treasures by setting an example for the local community regarding environmental conservation. Through various initiatives and practices, the school hopes to inspire others in their efforts towards environmental stewardship.
7. To become an idol/icon in environmental conservation among schools.
8. By continuously seeking new clean energy sources and adopting sustainable practices.
9. Continuous innovation to improve existing renewable energy technologies, making them more efficient, affordable, and accessible for widespread adoption, thus contributing to a greener and more sustainable future.

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)

The Sustainable Development Goals address the global challenges we face, including those related to poverty, inequality, climate change, environmental degradation, peace and justice. Our school is trying to interconnected it to achieve our specific goal on renewable energy as below:

With the implementation of the programme the students and teachers will have an awareness on the usage of renewable energy in line with **SDG 7 - Affordable and clean en**ergy. This will help to reduce electrical consumption as they are informed of other ways to get energy. As we know that renewable energy does not produce harmful emissions contributing to climate change.

SDG 13 - Climate action is trying to combat the issues of global warming which is caused by the greenhouse gases. The school gardens act as a natural coolant to its surrounding. Thus, it helps to reduce the usage of air conditioner and fan and this indirectly decrease our electricity billing.

SDG 12 - Responsible Consumption and Production is about ensuring sustainable consumption and production patterns, which is key to sustain the livelihoods of current and future generations. The more we consume energy the more bills we are going to pay. Moreover, more carbon dioxide will be produce

and lead to global warming. Thus, by implementing solar system in school it will help to reduce consumption and production of the gasses.

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

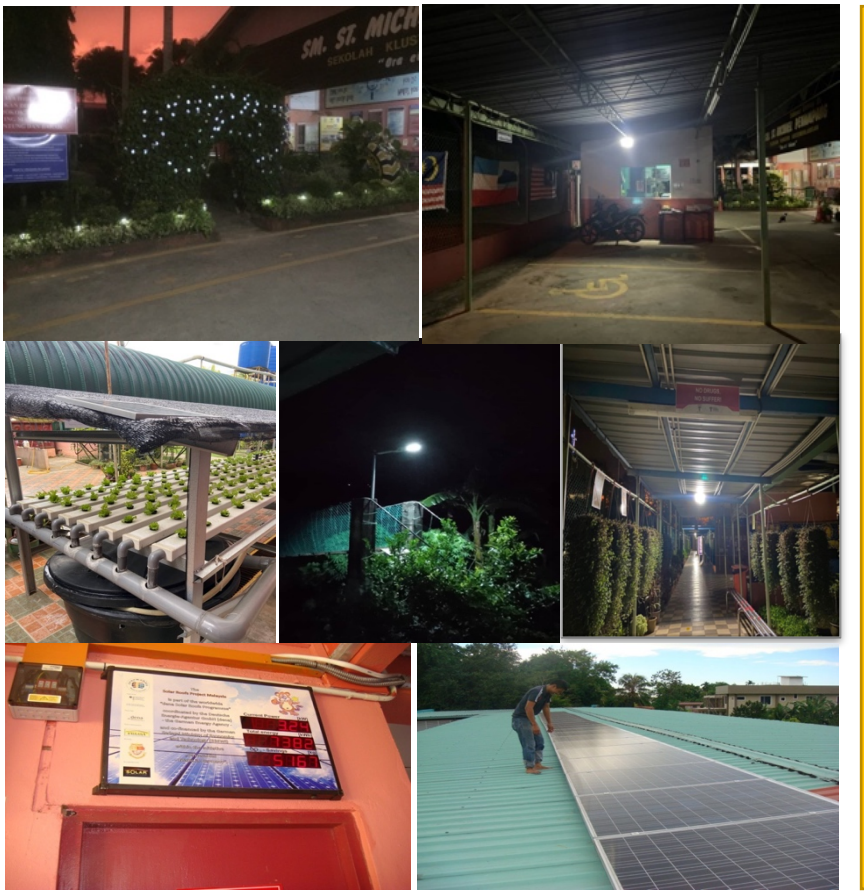
Aquams Youtube https://youtube.com/@agents4change

Lestari Website https://sites.google.com/moe-dl.edu.my/smsmlestari/

School youtube https://www.youtube.com/channel/UCAgyq5ajDYSLrXC2ESpZkJw

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

Photo1



Solar-powered lights and photovoltaic system in school

Photo 2

Outreach progrramme with the communities

Photo 3



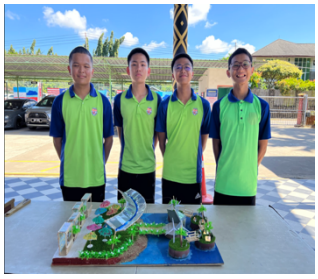
Malaysia Book of Records (MBOR) - The Most Candles Made of Recycled Cooking Oil

Photo 4

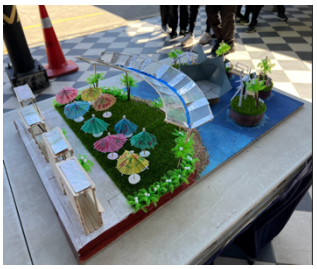



Cross curriculum teaching and project-based learning showcase

Photo 5





Green City Project and showcase by students

GUIDELINES FOR SUBMISSION OF ENTRIES

1. The sharp deadline of entry submissions is **15 August 2023.** Late submission is not accepted.
2. Each school can submit **only one (1) entry**.
3. The school's entry that has been shortlisted or won the SEAMEO-Japan ESD Award within the past three (3) year (2020-2022) is not considered.
4. Schools must submit the following requirements to the SEAMEO Secretariat:
   A. A completed **submission form of 2023 SEAMEO-Japan ESD Award** which have to be made in .docx or .pdf format, maximum file size is 10 MB. The submission form can be downloaded from the SEAMEO website: https://link.seameo.org/2023SEAMEOJapanESDAward or request through email: seameojapan.award@seameo.org

   B. **A 3-minute video clip** presents the school's programme in English. If it is produced in local language, please add subtitles so that the judging committee can understand it. Please upload your video to YouTube or other video-sharing sites and submit the video link through the google form as detailed in No.9
5. The information about the school's programme (in Part II as follows) **should not be over five (5) pages of A4 in total**. The information should be written in **Times New Roman/Calibri font, font size 11**.
   A. Part I - Information about the school;
      1) School's name and contact details
      2) Brief information about the school such as number of teachers and students and educational level
      3) Contact details of the coordinator
   B. Part II - Information about the school's programme;
      1) Title of the school's programme