Theme for 2012: Education for Disaster Risk Reduction

Supporting Partners:

Bank of Tokyo-Mitsubishi UFJ

Submission Form of SEAMEO-Japan ESD Award
The last day for submission of entries: 25 August 2012

PART I: Details of Your School

1. Name of your school: SMK BANDARAYA KOTA KINABALU
2. Full address: SMK BANDARAYA KOTA KINABALU
   88450 MENGGATAL
   KOTA KINABALU, SABAH.
3. Postcode: 88450
4. Country: MALAYSIA
5. Telephone number (country code+city code+telephone number): 6 088-492882
6. Fax number (country code+city code+fax number): 6 088-491855
7. Name of the Head Master/ Principal/ School Director: DR. SHIRLEY TAY SIEW HONG
8. Name of Teacher Coordinator: ELSIE SHARON GILUK
9. Email address: smkb_kk@yahoo.com
10. School website (if available): https://sites.google/site/smkbkkcom/
    http://e-smkbandaraya.tk
11. Educational level (Such as Kindergarten 1 to Grade/Year 9): SECONDARY
12. Number of teachers in your school: 146
13. Number of students in your school: 2609
14. Please provide the name of teachers and students who were/have been involved in the planning and implementation of this school activity/programme on Education for Disaster Risk Reduction.
PART II: Information about the School’s Activity/Programme on Education for Disaster Risk Reduction

The information of part II from no.1 to 11 should be no longer than eight pages long (A4 type, Arial font, size 11 point). A half to one page A4 of the project summary should be included.

1. Title of the school’s activity/programme on Education for Disaster Risk Reduction

THE ECO GREEN WAVE PROJECT

2. Summary of the activity/programme (a half to one page A4)

The geographical position of our school and the poor drainage system is such that it is prone to flash flood. This is made worst by the irresponsible littering done by the surrounding and school’s community. 80% of our students’ population comes from the water villagers. Their economic and educational statuses are at the low end. Due to their low level of education their awareness towards the important of preserving the environment is very poor, these will influence their method of educating their children. The values they impart will determine the quality of their generation.

The Eco Green project is basically a project on sustainability of the environment. This project consists of a few smaller projects such as recycling plastic and paper waste, mud ball, on site-learning, rubbish net, flood alarm and exhibition or talks. All of these projects are done to achieve the objectives of the Eco Green Project. When the environment is sustained then its’ risk of experiencing disaster will be reduce. The viability of a certain project to be implemented successfully depends very much on the background of the society that lives in that particular environment. With that in mind the team of administrators in our school taught and planned long and hard before we finally came up with the projects to support the vision of this Eco Green project.

Sabah is blessed with a diverse society consisting of different races and ethnic groups. Our school has 2609 students which is by far the biggest population of students in Sabah. These students we are producing at our school will be parents of tomorrow’s generations. We might not be able to educate their parents or grandparents of the importance of
preserving the environment in order to prevent major disaster from befalling our mother earth, but our Eco Green wave project hopefully will shape the minds of these students and they in turn will grow up be role models to their parents, siblings and their own children.

3. Background information or reasons why the school initiated this activity/programme

WHY THE SCHOOL INITIATED THIS ACTIVITY/PROGRAMME?
SMK Bandaraya Kota Kinabalu experienced a massive flood in the year 2009. The unfortunate event that happened during the registration of Form One students had badly affected everybody. Parents, children and teachers had to undergo thigh water level. Some parts of the school compound were barely seen especially the school’s field. Teachers’ cars were almost unable to leave the school compound. All of these occurred only in a day’s time and within a few hours of heavy pouring rain.

After thorough investigation made by the staffs and parents teacher association regarding this flash flood, the school authority came into few findings; the vast development surrounding the school compound, the students’ habit and attitude of littering, and the lack of conscience among students about their environment. First and foremost, the vast development around the school compound involving the construction of new housing areas, the main road expansion, and the deforestation behind the school in order to build apartments have been diagnosed to be among the catalysts for the flood. All these immense constructions lead to soil erosion and clogging of water drainage by dirt and stones.

In addition to that, the students’ habit of littering also contributed to this flood. The rubbish thrown were mostly their food plastic wrappings, drinking cans and water bottles. The tremendous daily amount of rubbish thrown everywhere has suppressed the drainage until it overflowed the running water.

Besides that, the school is also aware of the students’ poor conscience about the environment. Despite the government’s effort of promoting the use of recycling bins, students hardly use the bins correctly. Eventually, the bins become nothing more than school’s ornaments.

Therefore, the school is taking a bold approach to overcome this flood and the lack of conscience among students about nature by creating the ‘Eco Green Project’. This green project hopes to reduce the effects of flood and promote nature conscience among the community of SMK Bandaraya Kota Kinabalu.

4. Objectives/goals of the activity/programme

1. To instill caring attitude towards the environment (say no to polystyrene, recycle project)
2. To educate the communities on various ways of turning waste into usable materials (Enzyme, patchwork)
3. To educate the students, teachers and the surrounding communities on other alternative of using recyclable material to generate income (Fashion show, Innovating recyclable materials into teaching Aids, Pencil case, table cloth, vases, purse, bags and etc.)
4. To inculcate and nurture creativity amongst the students/ younger generation
5. Period of time when this activity/programme was/has been implemented

2010 – onwards

6. Activities (Short-term actions and strategies of implementation of the short-term actions)

   a. FLOOD ALARM (JANET & SAINAH)
   b. RUBBISH NET (JANET & SAINAH)
   c. RECYCLE PROJECTS (ELSIE)
   d. MUD BALL (ELSIE)
   e. ON SITE LEARNING (ELSIE & NANCY)
   f. EXHIBITION ON ENVIRONMENTAL ISSUES (SCIENCE PANEL)

   a. FLOOD ALARM

   This innovation are placed at specific places which are prone to flooding
   This flood alarm can give out 3 warnings according to the water levels
   - First alarm :- Alert the school communities so that they can prepare to take
   necessary precautions
   - Second Alarm :- Means to evacuate the school compound
   - Third alarm :- Means dangerous water level

   b. RUBBISH NET

   The use of this gadget is to bring about the awareness on the importance of not
   littering to the school communities. It was used at the village where most of our
   students come from.
   How to use the gadget:-
   The net can either be handle by 2 students or can be modified to attach to a small
   boat, floating litters will be collected into the net. The rubbish collected will be
   brought a shore and thrown at the main rubbish dumping site

   c. RECYCLE PROJECT

   1. TURNING FOOD WASTE TO ENZYME - fruit, garbage
      - Canteen and Hostel food Operators produce large quantity of food waste.
      Which are either thrown in the drain or send to the rubbish dump site
      - Teachers in charge are identified, the teacher will give short course to the student,
      canteen and hostel operators.
      - Students, canteen and hostel operators will turn their useable waste product into fruit
      enzyme
      - The product will be given to the school gardener to water the flowers, clean the drains
      and toilet around the school area.
2. RECYCLE PAPER/PLASTIC WRAPPERS
   - Recycling activities organized as students activity after PMR exam
   - Recycle activity is also incorporated in the teaching and learning of Science subject (done throughout the year)
   - Plastic wrappers are collected from the school staff (teaching and non) and the students
   - Once a week during Science period students are divided into groups to do recycling activity such as making pencil case, vases, cap, table cover or basket from papers or plastic wrappers
   - Refer to attachment 1

3. RECYCLING OF SOFT DRINK BOX/CONTAINER
   - Talk by Tetra Pak Malaysia representatives 20th September 2011
   - Objective: to educate the school communities on method of recycling soft drink boxes
   - Collection of soft drink container with the prize of RM 0.50 per Kg offered
   - This is handled by the Science Club
   - It is then sold to the company assign by Tetra Pak Malaysia (refer to attachment 2)

4. SAY NO TO PLASTIC BAG AND POLYSTERENE
   - This programme is done during Science and Maths Month
   - For the whole month the Canteen operator and the students centre for business (PUM) are not allowed to use any plastic or polystyrene as food wrappers.
   - They are only allowed to use paper wrappers.
   - It was officiated by the Officer from Kota Kinabalu City Council representing the Mayor.

5. FASHION SHOW COMPETITION
   - Done during Science and Maths month
   - Using recyclable material such as plastic, boxes
   - They are given three weeks to prepare their design
   - At a designated time and venue they are divided into 2 categories lower and upper secondary. Judges are appointed amongst the teachers, creation are marked according
to their use of recyclable material and creativity
- Refer to Picture

6. INNOVATION COMPETITION

- Using bottles and other product
- Was organised as one of the programme after PMR exam (Public exam 2011) and also during Science and Innovation month 2012

7. ON SITE LEARNING

Visits to Mangrove learning centre – KK Wetland Likas, Kota Kinabalu Sabah.
In chapter 5 of form 4 Biology students are required to learn about the importance of mangrove trees on prevention of flooding and tsunami.
Students are also exposed to hands-on activities such as planting mangrove seedlings to instill in them the love and appreciation of the trees.

8. EXHIBITION ON ENVIRONMENTAL ISSUES

- During the Science and Innovation month, an exhibition dub “Seeds of Hope” was held. This is a collaborative programme between the school and Sokka Gokai Malaysia.
- This exhibition contains 24 panels, including one left blank with a simple tree design/ or an impression tree so viewers can attach their own statement of what they will do toward sustainability.
- The exhibition uses the “Learn, Reflect, Empower” formula, so before the exhibition day a group of students were chosen. There are given training to be good narrators for specific panels.
- The school fortunately was chosen by the Sokka Gokai Malaysia an NGO promoting peace and environmental sustainability to help train the students and supply the panels.

7. Resources used for implementing the activity/programme

1. Grant received from environmental department - RM 5000.00
2. Grant from PIBG according to application and working paper
3. Donation from kind individual
4. Donation from School Alumni
5. Training from personal of Sokka Gokai Malaysia
8. Monitoring and evaluation mechanism and results

<table>
<thead>
<tr>
<th>FLOOD ALARM (JANET &amp; SAINAH)</th>
<th>RUBBISH NET (JANET &amp; SAINAH)</th>
<th>RECYCLE PROJECTS (ELSIE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUD BALL (ELSIE)</td>
<td>ON SITE LEARNING (ELSIE)</td>
<td>EXHIBITION ON ENVIRONMENTAL ISSUES( SCIENCE PANEL)</td>
</tr>
</tbody>
</table>

1. **FLOOD ALARM**
   - Monitoring is done once a month to maintain the condition of the alarm
   - During rainy season the school communities are trained to be alert to the sound of the siren

2. **RUBBISH NET**
   - The use of rubbish net is done according to the condition of the villagers or area
   - During low tide the users can use it manually, during high tide the users can fix it to a small boat.
   - The use of rubbish net help reduce the amount of rubbish thrown on the sea.
   - At the same time it also instill cooperative values amongst the students

3. **FOOD WASTE AS ENZYME**
   - Teachers in charge will have a schedule to check on the canteen and hostel’s food operator to see if they compile with the school direction to turn their food waste into enzyme
   - The school gardener and cleaner will be monitored from time to time
   - This activity has resulted in less flies and dogs in the school compound scavenging on the waste bin.
   - The school management also reduce its expenditures on buying chemical cleaners

4. **RECYCLE PAPER/BOTTLE/PLASTIC WRAPPERS**
   - Done every year during Sciences and Innovation month, a competition is organised where all classes must submit their products for evaluation purposes
   - Prizes are given to the winners to show appreciation on their effort
   - This annual activities help foster love of the environment and creativity amongst the students
   - Besides that it also promote team work

5. **RECYCLING OF SOFT DRINK BOX/CONTAINERS**
   - Talk by Tetra Pak Malaysia representatives in 2011 help kick start the project.
   - Objective:- to educate the school communities on method of recycling soft drink boxes/containers
- Collection of soft drink container with the prize of RM 0.50 per Kg is offered
- This is handled by the School’s Science Club
- It is then sold to the company assigned by Tetra Pak Malaysia (refer to attachment 2)

6. SAY NO TO PLASTIC BAG AND POLYSTERENE
- This is done during Science and Maths Month
- For the whole month the Canteen operator and the students centre for business (PUM) are not allowed to use any plastic or polystyrene as food wrappers.
- They are only allowed to use paper wrappers.
- It was officiated by the Officer from Kota Kinabalu City Council representing the Mayor.

7. FASHION SHOW COMPETITION
- Done during Science and Maths month
- Using recyclable material such as plastic, boxes
- They are given three weeks to prepare their design
- At a designated time and venue they are divided into 2 categories lower and upper secondary, Judges are appointed amongst the teachers, creation are marked according to their use of recyclable material and creativity

8. INNOVATION COMPETITION
- Using bottles and other product
- Was organised as one of the programme after PMR exam and also during Science and Innovation month 2012

9. ON SITE LEARNING
Visits to Mangrove learning centre – KK Wetland Likas, Kota Kinabalu Sabah.
- In chapter 5 of Biology form 4, students are required to learn about the importance of mangrove trees on prevention of flooding and tsunami
- Students are also exposed to do hands-on activities such as planting of mangrove seedlings to instil in them the love and appreciation of the trees

10. EXHIBITION ON ENVIRONMENTAL ISSUES
- During the Science and Innovation month, an exhibition dub “Seeds of Hope” was held. This is a collaborative programme between the school and Sokka Gokai Malaysia
- This exhibition contains 24 panels, including one left blank with a simple tree design/ or an impression tree so viewers can attach their own statement of what they will do toward sustainability.
- The exhibition uses the “Learn, Reflect, Empower” formula, so before the exhibition day
a group of students were chosen. There are given training to be good narrators for specific panels.

- The school fortunately was chosen by the Sokka Gokai Malaysia an NGO promoting peace and environmental sustainability to help train the students and supply the panels.

9. List of partners, local government bodies, companies or development agencies who participated in the planning and implementation, including their roles in the activity/programme.

<table>
<thead>
<tr>
<th>Name of Partners</th>
<th>Roles or contributions</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Wong Kwok Group</td>
<td>Consultation</td>
</tr>
<tr>
<td>b) PIBG</td>
<td>Funding</td>
</tr>
<tr>
<td>c) WetLand</td>
<td>Educational Talks</td>
</tr>
<tr>
<td>d) YB Datuk Jainab</td>
<td>Funding</td>
</tr>
<tr>
<td>e) YB Datuk Jumat</td>
<td>Funding</td>
</tr>
<tr>
<td>f) UMS</td>
<td>Professional consultation</td>
</tr>
<tr>
<td>g) Miss Earth Sabah</td>
<td>Awareness</td>
</tr>
<tr>
<td>h) Sokka Gakai KK</td>
<td>Awareness</td>
</tr>
<tr>
<td>i) Department of Safety and Healthy(DOSH)</td>
<td></td>
</tr>
</tbody>
</table>

10. Benefits/impacts of the activity/programme to teaches, students and the community

1. FLOOD ALARM

- Peace of mind because the school community will be warn before the access road in and out of the school is inaccessible

3. RUBBISH NET

- Team spirit among the students, teachers and community is strengthened
- The school’s policy as ‘sekolah sayang kamu’ or school loves you towards its students and the community is highlighted
- Students as the members of community in their village will play a role as model to their fellow villagers or families to promote no litter value

4. TURNING FOOD WASTE TO ENZYME

- Less food waste is thrown in the drain or surrounding area near the canteen or the hostel kitchen
- The school environment will be more hygienic - no smelly odors, no flies and pest like rats.

5. RECYCLE PAPER /PLACTIC WRAPPERS/SOFT DRINK CONTAINER PROJECT

- Students are more aware of the different products that they can produce from paper/plastic
wrappers

- Team spirit amongst students is nurtured
- Love of the environment is instilled
- Teachers can use the recycle project as teaching aids
- Students are taught to be more enterprising

1. Plan for sustainability and plan for the future

Plan for sustainability:

1. FLOOD ALARM

- The group of students who are trained to monitor the flood alarm will take turns to check on functionality of the gadget
- These students will train a group of younger students how to maintain and operate the gadget.

2. RUBBISH NET

- A few rubbish nets are built
- Students are selected from different water villagers and trained on how to operate the rubbish net.
- These nets are then distributed to the group of students to man
- The local community wherever possible will be involved in the briefing so that they will also play a part in the programme.

3. ENZYME FROM FOOD WASTE

- The teachers in charge will from time to time give refresher course for new students, canteen and hostel food operators

4. RECYCLE PAPER/PLASTIC WRAPPER

- In cooperated in the time table, done at least once a week for chosen classes (Form 2 or 4.. for non exam classes)
- As one of after exam project for all the students in form 3 who have taken their PMR (a public compulsory exam).
- Certificate of recognition is given to the groups or students to show appreciation for their initiatives

5. COLLECTION OF SOFT DRINKS BOX CONTAINER

- When the weight of the collected container has reached a certain amount the collecting company will be notified to come to come our school
- The best individual or group collectors will be announce every week
- Certificates of recognition will also be given at the end of each school term
6. MUD BALL

- The students under the Science Club will make mud balls during co-curricular activities every Wednesday according to the monthly planning
- These mud balls are then thrown in the rivers or lakes found near the school
- These activities will help sustain or improve the quality of the rivers and lakes

7. EXHIBITION AND TALKS ON ENVIRONMENT

- The training of students as narrators for environmental awareness issues will be carried out as a yearly event.
- Seeds of Hope exhibition or similar exhibition will be organized through the joint venture initiatives between NGOs and the school management.
- During such exhibition the parents and the surrounding communities will also be invited to visit the panels/booths so that they will also be exposed to environmental issues and they will be able to take small steps to reduce the destructions of our mother nature.

Plan for the future:

We will continue with our current programs, because through observations and feedback from parents and teachers association and also from students, we are motivated with their improved sense of responsibility towards themselves and the environment.

We are also planning to add more numbers of villages to do our CSR activities, such as the rubbish net and exhibitions.

We will also continue our good cooperation with the various NGOs, by inviting them to our annual programmes such as Science and innovation month, Eco Green wave programmes and many more.

We will also encourage our students and staff to come up with quality innovation through our yearly innovation competition.

1. List of attachments such as a copy of learning/teaching materials, samples of student worksheet, manual, etc.

Attachment 1) –
Attachment 6) Evaluation form........
2. Photos related to the activity/programme (The school can provide the related photos as many as you can)

Photo 1

Group photo taken during the launching of the Eco Green Wave project, 2011-2012. Launched by One of the state cabinet ministers and attended by the winner of Miss Earth Sabah 2011. Seen standing in front are students showcasing their costume made of recyclable materials.

Photo 2
Our Director of education Datuk Muhiddin Bin Haji Yasin being given a briefing by the Sokka Gokai representative and our student who is one of the 50 narrators.

One of the symbolic activities done-mud ball making and thrown into a pond in the school compound
Sokka Gokai Malaysia Sabah branch representatives trained around 86 of our students as narrators for 25 panels. These panels have information about the destruction of our environment and what we can do to reduce or address the issues. At selected days during the science and innovation month all the students in the school visited the venue of exhibition (at the school hall) in sequence.

Talk on recycling of Soft Drink box container, given by representatives from Tetra Pak Malaysia 20 September 2011
Examples of product made from recycle papers

Teachers evaluating one of the recycle product
gallon innovated into multipurpose container
Our principal delivering her speech during the launching of Say No To Polystyrenes and Plastic campaign (2010)

Irresponsible acts by some students before the campaign/project
Pictures taken in 2009
Students checking on the Flood alarm devise

The Flood alarm device - Pictures taken in 2012

Please also note the condition of the drain and the school area. Much cleaner after the campaign.
Kg Numbak is one of the villages where most of our students hail from, we did the project there to inculcate no littering values amongst the villagers.

Project organized to inculcate no litter value. Instead of throwing, use the wrappers to produce something worthwhile or saleable. This might improve their livelihood.
Students doing recycle project using plastic wrappers – 3 in 1 beverages wrappers/ food wrappers
Completed products – the students manage to make
- Hand Bag
- Purse
- A cap