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Climate Change and Renewable Energy Youth Camp Report

2-DAYS WORKSHOP FOR YOUTH

Tuesday-Wednesday, 13th-14th December, 2016, UniSey, 8:30am-4:00pm

Compiled by Magdalena Górska

BACKGROUND

The NGO Sustainability for Seychelles (S4S) has been awarded a grant from the Canadian Fund for Local Initiatives (CFLI) to promote hands-on lessons in solar PV in Seychelles' schools, as a support to the national science curriculum. Under the project, each state primary and secondary school will receive a donation of an educational kit for teaching and learning about solar PV in science & technology lessons. The kit includes essential equipment such as a small solar PV panel, a charge controller, battery, motor, necessary wiring, and tools, etc. The project will also involve the 2-days workshop for youth in use of the PV kits, and a national mini-science fair competition to challenge schools to use the kits. On Tuesday and Wednesday, December 13th and 14th 2016, secondary students mainly from Wildlife Clubs Seychelles participated in a 2-days training to learn more about climate change, renewable energy in particular solar Photovoltaic PV technology. The workshop was held at University of Seychelles. This report provides a summary of the proceeding of the youth workshop.

WORKSHOP OBJECTIVES AND AGENDA

The objectives of the teachers' workshop were to:

- To build students' knowledge and understanding of climate change and renewable energy technologies
- To familiarize students with solar PV through experimentation with solar PV kit for schools
- To help participants understand the importance of renewable energy and inspire them to participate in the solar PV science fair competition in schools

The agenda for this 2-days' workshop was as follows:

Day 1

1. Introduction and icebreaker
2. Introduction to climate change
3. Group work to learn more about climate change in a Small Island Developing States
4. Group work to learn more about different renewable energy technologies including PV
5. Field trip to; SIT to see a solar PV installation, PUC to see the generators and windmills

Day 2

1. Review of day 1
2. Familiarizing with climate change
3. Presentation about solar PV and kits for schools
5. Group work to learn how to using the solar PV kits
6. Brainstorm about science fair ideas
7. Workshop conclusion and evaluation

A program can be found in Annex 2

WORKSHOP PARTICIPANTS

Day 1

- The youth workshop was attended by 23 students and 2 teachers on day 1: 8 students from Plaisance Secondary, 4 students from English River Sec, 5 students from Mont Fleuri Sec, 2 students from Anse Boileau Sec, 2 students from Pointe Laure Sec, 1 student from Independent School, 1 students from School of Advanced Level Studies, 1 teacher from Plaisance Sec and 1 teacher from Anse Boileau Sec.

Day 2

- The youth workshop was attended by 21 students and 1 teacher on day 2: 5 students from Plaisance Sec, 5 students from English River Sec, 4 students from Mont Fleuri, 2 students from Anse Boileau Sec, 2 students from Point Laure Sec, 2 students from Independent School, 1 student from School of Advanced Level Studies and 1 teacher from Plaisance Sec.
- The list of participants can be found in Annex 1.

WORKSHOP DESCRIPTION

- The workshop was organized by the NGO Sustainability for Seychelles (S4S) in collaboration with the Wildlife Clubs Seychelles. The training was facilitated by Michele Martin (Sustainability for Seychelles), Magdalena Górska(Intern from Avans University, S4S) and Gino Leon (S4S) with support from Terence Vel (Wildlife Clubs Seychelles), Elke Talma (UNDP/GEF Project Coordination Unit of the Ministry of Environment) and PUC.
- The training was held at University of Seychelles (venue provided for free), and the field trip to SIT and PUC. Certificates of participation, stickers, and a climate change board games were given to all of the participating students and teachers.
- The students contributed actively in the workshop; firstly, they play eco-bingo to ice-break and be more involved in the seminar. The eco-bingo can be seen in Annex 3.
- The workshop started with a climate change film and afterward discussion about causes and effects of climate change.
- After the discussion, the students took part in a climate ready island activity. They created a climate ready island and explained what they think it is essential for the future wellbeing of a small island.
- Furthermore, the students took part in a renewable energy activity; they gave an excellent description of the different kinds of renewable energy technologies to their colleagues.

- This was followed by the field trip. Firstly, we went to see solar PV installation at SIT, where Elke Talma gave an excellent explanation how the whole system works. After that, the students went to PUC visit the generators and windmills. At PUC the youth got a brief explanation how the whole system work and they had the opportunity to ask questions.
- Following day 2, students created climate change interviews with each other, where they could practice their knowledge and teach each other.
- This was followed by another presentation introducing PV technology for electricity generation.
- S4S has also explained and invited to a mini-science fair competition, challenging schools to use the PV kits to design and build a device or toy that is powered by the sun. The competition deadline is set for mid-February, 2017 and is open to all state and private schools in Seychelles.
- Students had the opportunity to familiarize themselves with solar PV technology through a hands-on session working in groups to build a simple device powered by a solar panel. The students made the boat, fan, and almost a mini solar car!
- During the brainstorm session, most students were enthusiastic about using a solar PV challenge and they came up with some ideas like; mixer, car, boat, fan, and helicopter.

WORKSHOP EVALUATION BY PARTICIPANTS

Day 1

Participants were given a simple evaluation form to complete at the end of the workshop. The following responses were provided by 24 participants who filled in the forms:

1. ONE NEW THING YOU LEARNED IN THE WORKSHOP	3. WHAT DIDN'T YOU LIKE?
<ul style="list-style-type: none"> • Renewable energy technologies (1) • How solar water heater works (1) • About how the solar PV system works (12) • To save more water and energy (2) • About how to connect a solar PV kit and ideas for the projects (6) • Benefits of solar energy (5) • About ways of saving energy (3) • Learning about importance of renewable energy in our life (2) • Different types of renewable energy (2) • The difference between solar hot water and solar electricity (1) • How electricity works (2) 	<ul style="list-style-type: none"> • No response (18) • Only 2 days (1) • The food (3) • The PUC explanation was too brief (3) • Not much teamwork (1)
2. WHAT DID YOU ENJOY ABOUT THE WORKSHOP?	4. HOW CAN YOU APPLY WHAT YOU LEARNED IN YOUR WORK/HOME/LIFE?
<ul style="list-style-type: none"> • Atmosphere during the workshop (1) • Visit the windmills (5) • Group work (1) • The field trip (10) • Food (1) • Discovered the impacts of climate change (1) • Presentations (4) • Very interactive (4) • Well planned workshop (1) 	<ul style="list-style-type: none"> • Use less water (1) • Educate colleagues (2) • Put more attention to energy conservation (5) • Doing activities and competition after classes (1) • Always find the most effective way to save energy (1) • I would install solar PV panels on my roof (3) • Save as much energy as possible (1) • In my school during several projects (2) • Use less electricity and produce less pollution (1) • By preventing climate change (4) • By telling to the others what I've learned (1) • Try to use more renewable energy (1) • In projects at school (1)

(note: numbers in parentheses indicate number of participants who gave the same response)

Day 2

Participants were given a simple evaluation form to complete at the end of the workshop. The following responses were provided by 18 participants who filled in the forms:

1. ONE NEW THING YOU LEARNED IN THE WORKSHOP	3. WHAT DIDN'T YOU LIKE?
<ul style="list-style-type: none"> • About how the solar PV system works (7) • What is climate change (1) • How to use solar PV panels (7) • Different types of PV systems (6) • How the electricity is generated by solar PV panels (3) • Renewable energy technologies (1) • How solar water heater works (1) • About how the solar PV system works (12) • To save more water and energy (2) • About how to connect a solar PV kit and ideas for the projects (6) • The difference between solar hot water and solar electricity (1) • How electricity works (2) 	<ul style="list-style-type: none"> • No response (15) • Only 2 days (2) • The PUC explanation was too brief (3) • Not much teamwork (1) • Not enough accessories for the solar PV kit (2)
2. WHAT DID YOU ENJOY ABOUT THE WORKSHOP?	4. HOW CAN YOU APPLY WHAT YOU LEARNED IN YOUR WORK/HOME/LIFE?
<ul style="list-style-type: none"> • Educational experience (1) • Everything (8) • A solar PV: mini science fair (8) • Group work (7) 	<ul style="list-style-type: none"> • In the classroom projects (2) • By sharing my knowledge with my friend (4) • How solar PV can help us (1) • Use less water (1) • Educate colleagues (2) • Doing activities and competition after classes (1) • Always find the most effective way to save energy (1) • In my school during several projects (8) • By telling to the others what I've learned (1) • Try to use more renewable energy (1) • In projects at school (1)

(note: numbers in parentheses indicate number of participants who gave the same response)

CONCLUSION AND RECOMMENDATIONS

Overall the workshop was a success. The training objectives met, and the students' feedback was positive. Students enthusiastically participated in the group work and indicated their interest in sharing what they learned with each other. The youth liked the solar PV kit and are willing to take part in national solar PV challenge. Moreover, the PUC visit was for majority very excited, and they had learned the benefits and disadvantages of conventional energy such as generators which burn fossil fuel and renewable energy in particular solar PV energy and wind energy. After the 2-days workshop, students can explain; what is climate change, the effects and causes of climate change. Furthermore, they are able to distinguish several types of renewable energy with the focus on Photovoltaic solar energy. Also, they can connect the solar PV kit for schools and build something out of it.

The following recommendations from the student should be taken into account for future workshops and follow up:

- Arrange the details of the PUC visit beforehand.
- Prepare more materials to build some devices with use of a solar PV kit.
- Avoid having TV interviews on day 2 just right before the conclusion and evaluation. It was very distractive for the participants and facilitator.

WORKSHOP PHOTOS





WORKSHOP PARTNERS, IN ADDITION TEACHERS' TRAINING:

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ANNEX 1 – Participation List

Day 2 – 14/12/2016

Day 1 – 13/12/2016

ANNEX 2 – Agenda

Day 1

8:30	Welcome & Opening & Icebreaker	Michele
9:00	Introduction to Climate Change: film and discussion	Magda
9:30	Group work: climate ready islands	Michele
10:00	Tea break	
10:15	Group work: presentation of the islands	Magda
10:45	Group work: renewable energy activity	Michele
1:00	Lunch	
1:00-4:00	Field trip	All
4:00	Conclusion and evaluation of the workshop	Magda

Day2

8:30	Review of day 1	Magda
8:45	Climate change interviews	Michele
9:00	Presentation: climate change	Magda
9:15	Presentation: solar PV& kits for schools	Magda
9:45	Tea break	
10:00	Demonstration: using a solar PV kit	Gino
10:10	The Solar PV Challenge: a mini science fair	Magda & Gino
12:00	Lunch	
12:30-1:30	The Solar PV Challenge: presentation of the projects	Magda & Gino
1:30-2:00	Brainstorm about science fair ideas	Magda
2:00-3:00	Conclusion and evaluation of the workshop	Magda

ANNEX 3 – ECO-BINGO



eco-bingo!

FIND SOMEONE WHO:	NAME
1. Can tell you one easy energy saving tip	
2. Can name one type of RENEWABLE ENERGY	
3. Can tell you one place in Seychelles that uses solar panels for electricity	
4. Has a solar water heater at home or their business	
5. Uses energy saver bulbs at home	
6. Can tell you how PUC generates electricity	