

## Vanuatu

# VIRTUAL PILOT TRAINING OF TRAINERS AND FEEDBACK WORKSHOP

Capacity Building to Strengthen Sustainable  
Implementation of Renewable Energy Technologies for  
Rural Energy Access

### Workshop Report



26<sup>th</sup> and 27<sup>th</sup> May 2020

Irririki Island Resort,

Port Vila, Vanuatu

## Acronyms and Abbreviations

ACSE	Adapting to Climate Change and Sustainable Energy
ADB	Asian Development Bank
BRANTV	Barrier Removal for Achieving the National Energy Road Map Targets of Vanuatu
DFAT	Department of Foreign Affairs and Trade
DLA	Department of Local Authorities
DoE	Department of Energy
EE	Energy Efficiency
EU	European Union
GE	Green Economy
GGGI	Global Green Growth Institute
KOICA	Korean International Cooperation Agency

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## 1.0 Introduction

To strengthen informed and inclusive decision-making by resource owners and local government officials for integration of green economy (GE) and renewable energy (RE) into local level planning and to strengthen implementation of renewable energy (RE) infrastructure for rural electrification, the Global Green Growth Institute (GGGI) and the Pacific Islands Development Forum (PIDF) partnership, with funding from the Korea International Cooperation Agency (KOICA), has led to the development of a project titled ***“Capacity Building to Strengthen Sustainable Implementation of Renewable Energy Technologies for Rural Energy Access Project”***.

The project’s main objective is to strengthen informed and inclusive decision-making by resource owners and local government officials for integration of Green Economy (GE) and Renewable Energy (RE) into Local Level Planning and to Strengthen Implementation of Renewable energy (RE) infrastructure for Rural Electrification. GGGI will work closely with local partners to develop various training modules within the project context to achieve this goal. In addition, in-country based local trainers will be engaged to deliver these capacity building trainings throughout the identified communities.

The direct beneficiaries of this capacity building project will be a total of 3000 trainees from 4 countries. In Vanuatu, we aim to train 780 people altogether selected from the following target groups:

- 1) Provincial Area Administrators, other government officials stationed in selected communities, etc.
- 2) Traditional community/religious leaders and vulnerable groups (women, youth leaders), etc.
- 3) Local electricians, mechanics people with technical aptitude, etc.
- 4) Small businesses

This second ToT workshop for the project was conducted in Vanuatu, facilitated virtually by the Project Regional Coordinator, based out of Fiji and supported by the country coordinator, and Ms Belinda Stride from Pacific Communications Solutions (PCS) who helped out with the training exercises. Joining into the workshop also were the developers of the draft solar training manuals and GGGI and PIDF staff stationed in Fiji, PNG and Solomon Islands.

Prior to the workshop, the participants were shared the two draft solar training modules, namely; “Solar in the Community” and “Solar Operations and Maintenance Basics” together with a reaction survey form to be completed and presented on the first day of the workshop. The results of the survey are presented in Chapter 4 of this report. The agenda for the two days workshop is presented in Annex A of this report.

## 1.1 Workshop Objectives

The pilot ToT workshop had four main objectives:

1. To introduce the project to selected national trainers and gain their support for the training phase of the project
2. To train the trainers on the draft “Solar in the Community” training module and obtain feedback on the trainer’s guide, learners’ workbook, delivery methods and its suitability to the projects targets groups on Day 1 of the workshop

3. To train the trainers on the draft “Solar Operation and Maintenance Basics” training module and obtain feedback on the trainer’s guide and learners’ workbook, delivery methods and its suitability to the projects targets groups on Day 2 of the workshop
4. To further discuss on other areas of improvement in order to ensure easier knowledge transfer and acceptance of the training modules by the communities.

With good gender mix of trainers participated in the workshop, which ensured a balanced feedback for all target groups for this project.

## 1.2 Participants

A total of 7 national trainers have attended the virtual training workshop, selected from a mix of employment backgrounds, which included a solar vendor, a local technician, two heads of technical training institutes, a climate change consultant, a local qualified gender inclusion trainer plus an intern from a government agency. Out of all 7 participants attending the workshop, 3 of whom are women, and during each day of the workshop, the ratio of gender participation was 50%.

Also present on the initial session of Day 1 of the workshop was Mr. Mathew Tasale, from the Department of Energy, who gave the welcoming remarks prior to workshop commencement. The list of attendees is presented in Appendix B.

## 2.0 Workshop Opening

### **Welcome Address: Mr. Mathew Tasale, OIC, Department of Energy**



The opening welcome address was delivered by by representative of Department of Energy, Mr. Mathew Tasale. In his welcome remarks, Mr. Tasale acknowledged the funding support from KOICA. He also acknowledged GGGI and PIDF for their support in coordinating the project implementation at the regional level. Mr. Tasale also highlighted the importance of the project in building capacity in rural communities which is currently of urgent need, as the government ramps up investments in the areas of access and RE to meet its national energy sustainability priority targets of 100% percent electricity access and close to 100% use of RE sources by 2030.

## 3.0 Project Overview

### 3.1 Project Objective and Details



Mr. Paul Kaun, Vanuatu Project Coordinator, Global Green Growth Institute (GGGI), presented the project overview informing the participants on the background and objectives of the project. He also explained the importance of how the participants' feedback will have on improving the draft training manuals.

### 3.2 Day 1 – Training of Trainers on “Solar in the Community” module

After the project overview presentation, there was a brief introductory session where workshop participants were given the opportunity to introduce themselves and to briefly inform how they would contribute to the workshop.



After the welcoming and introductory sessions, Mr. Tazil proceeded with the presentation of the theoretical aspects of the draft training material, while the participants follow through the Learner's Workbook.

The presentation was a mix of theory, illustrations, discussions and activities.

Participants were quite engaged during each session of the workshop with no major issues confronted. The good internet connectivity really helped with exercises and questions and answer sessions.

The activities part of the workshop was facilitated by Ms. Belinda Stride and Mr. Thompson Alick from PCS.

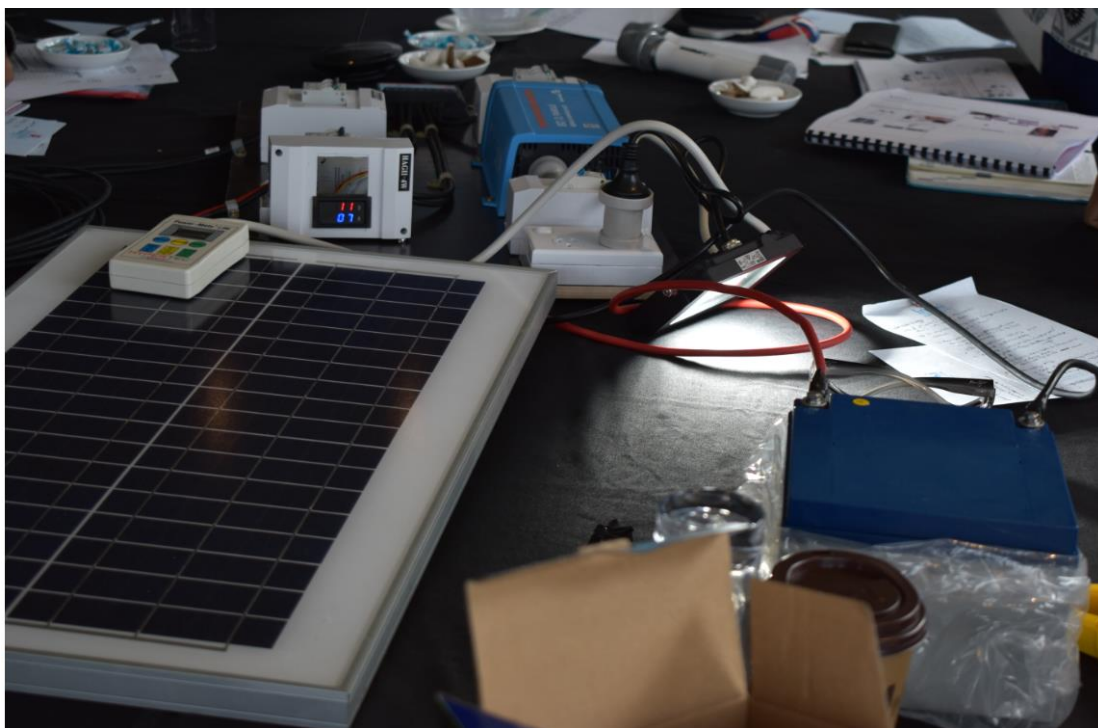




Belinda and Thompson prepared the solar training kit ready for the practical exercises.



Belinda showing different parts of a solar system to workshop participants on first day of the workshop



Solar system used for display and practical during the workshop

Parts of the training kit used during the workshop were provided by PSC and the BRANTIV Project.

Prior to ending of Day sessions, workshop participants were asked to come up with three suggestions on improving the “Solar in the Community” training guide and report on them at the start of following day.

### 3.2.1 Day 1 – Feedback from trainers on “Solar in the Community” module

The feedback received from the participants on training module are as follows.

- Shop’s Sales representatives also need to be in the training as they communicate more with customer in the community regularly based customer needs
- Still confusing with the difference between a batteries and non-quality ones.
- Need to translate the handbook to Bishlama with more picture, symbols to help community people understand better ( picture with Colour)
- P 16. Of Trainer Guide (TG), Activity 3: replace the solar radiant curve diagram with time (hours) of day for getting when maximum sunlight can be captured by the panels.
- P18. Figure 12: (from me) if the battery pictures be replaced by pictures of those commonly used in the Pacific, such as Panasonic, ABC battery, etc.
- P20. Figure 15, very helpful illustration by use of water storage and supply diagram.
- P20. Safety tips: use icons that catches attention, for aa safety tips, if use of action items comes first. In the case, eg, the sentence should start with; “Always avoid bare wires....”



- P1. Learner Workbook (LW): Lesson Plan and Times table; remove column titled “recommended times”
- P1. LW, “Solar in Community”, third line, the word “learner” be changed to “you”, makes it more interactive for learners.
- Safety Note on battery use: “Do not Open batteries”
- P 8. LW F34; change drawing so inverter gets connected directly to battery.
- On introduction to solar energy, when saying solar energy is free, it is important to differentiate between solar energy and solar system so that participants understand.
- Need to involve more men in the training due to nature of work in dealing with hazardous stuffs, like batteries and wires, especially for women who are also helping out with house chores such as food preparation - (Tazil then stress that women need to be in the training- Gender equality )
- Diagram showing wiring to need to be aligned with the SEI-API guideline
- The solar batteries need to be raised above the concrete floor
- Proper set up when going out to the communities to run the training as everyone though they are expert in solar in the community
- Women work together and is more powerful and it’s good to have more women in the training as they will also enforce solar in the community as this will help their children to study and also help them to cook at night with the lighting if they have a solar at home
- Create more activity and group discussion so that everyone can share their ideas
- Get a case study from a group of local women who went to India and ask for their experience
- Women like to transfer their knowledge to others and it’s good to get many of them involved in the trainings
- Need to provide tools for the women
- Participants handbook need to be simple with more information (Diagram)
- Identify sites for training
- Suggestion to add contact details in the workbook
- Activity 2 maybe print out the pictures and ask the participant to sort out and make connections.
- On the safety tip maybe put an icon that will catch the eye- and need to rephrase the wordings again (move the “low voltage current can be high enough to kill” to the safety tip)
- Need to change diagram in figure 34, the inverter should be connected directly to the battery, not to the charge controller



Workshop participants discuss and providing feedback on “Solar in the Community” training module.

### 3.2.2 Day 2 – Training of Trainers on “Solar O&M Basics” module

Day 2 of the workshop began with the participants making feedback on the “Solar in the Community” manual, presented the previous day. After the feedback session, Mr. Tazil proceeded with presentation on the “Solar Operations and Maintenance Basics”.

Day 2 was quite interactive, with questions and feedbacks, very lively discussions and more practical exercises. Belinda and Thompson were very helpful with the practical works, getting the participants more engaged and energized.

These practical exercises on mounting various components of the solar system together was done toward the end of the day. Apart from those with solar background, those attended was something new to them, even too scared to touch the wiring for fear of being electrocuted.

In the overall, it was a good experience, with useful comments/feedback that this sort of training workshop would be very helpful to rural people.



One of the female participants attempts the connection of various solar components with Belinda overseeing



Two of the workshop participants worked together the mount the system

### 3.2.3 Day 2 – Feedback from trainers on “Solar O&M Basics” module

Some of the feedback received on the training material presented included:

- Remove last column on timing, on Lesson Plan and Time, P1 of WB
- Figure 13: changes needed on color of DC+ and DC-.
- Put on a safety tip that do not put your panel on a hot metal, must have a space in between so that air can pass through and keep your panel cool.
- Figure 16: use different color coding for + and – in Solar panels.
- Diagram 4:1.2 put a clear picture of what is already happening in Vanuatu
- Need to have a shutdown procedure in the learners guide or workbook
- There was a query on the robustness of the solar panels against fallen objects
- In Figure 25: Add an appliance such as solar water pump as DC connection to solar system.
- A query on disaster preparedness, which solar components should be removed and stored away safely before disaster such as cyclone strikes.
- A question on whether tools be made available to local community technicians as part of this project.
- One of the ways to ensure there is sustainability and ongoing interest in rural communities for this kind of project and activity is to use existing environmental networks across rural communities, some of whom are resource managers and share common interest in areas such as climate change and environment.

## 4 Results from the Reaction Survey Form

A reaction survey form was sent out to all workshop participants a week before the workshop to complete after reviewing the two draft training manuals. Out of the 7 invited participants, only 6 submitted their completed reaction survey forms.

In part 1 of the reaction survey form, participants were asked to provide their perception on key areas of the training materials. The responses received were as follows;

- **Relevance to your work**

50% of the participants perceived that these training materials are very relevant to their work, largely because of their solar background.

The other 50% perception are from medium to strong, largely because they are involved with training and development thought these materials useful to rural communities.

- **Comprehension (Understandable Language) of Training Manual**

In terms of the comprehensiveness of the materials, two participants gave a ranking of 4 while 4 gave 5, meaning, all participants felt that the materials are quite comprehensive, meaning all participants thought they are very comprehensive.

- **Sufficiency of Manual Coverage (Are enough topics covered)**

For sufficiency of manual coverage, 50% of the participants gave a point of 5, 1 with 4 points and the other two with 3 points each. A comment made by one of the participants who gave the scoring of 3 was for a section to be allocated specially on role of women in solar.

- **Quality of Illustrations**

On the quality of illustrations, 67% gave a scoring of 5 and 33% gave a scoring of 3.

- **Relevance of illustrations to Thematic Area (topic)**

On the relevance of illustrations, again a scoring of 67% and 33% for scorings of 5 and 3 respectively.

- **Ease to present effectively as a trainer to the community**

For ease to present effectively as a trainer to the community, 3 of the respondents felt that they not sure if they could do so, while the other three seemed to not have problem doing so. This information is quite relevant for us to determine whom to engage in which module when carrying these capacity building training workshops.

- **Understanding (Grasp) of the Thematic Area (topic)**

With respect to participant's understanding of the thematic area, 67% says yes, very good understanding, while 33% score on average.

- **Usefulness in your work to use/train for the community**

In terms of how participants perceive the usefulness of the materials to their respective jobs to train communities, 50% says very useful, the other 50% say it is useful.

- **Practicality of these trainings for your country/community**

In terms of the practicality of the training to Vanuatu, all participants strongly agreed that these manuals are practically relevant.

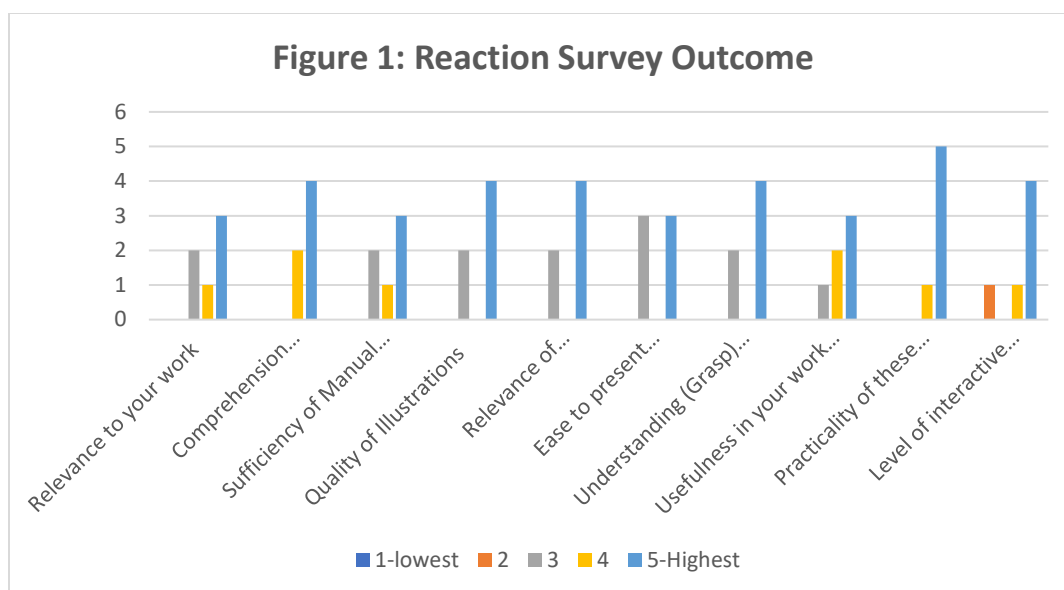
- **Level of interactive activities in the Training Manuals**

One participant gave a scoring of 2 for this question, one with scoring of 4 and the remainder with 5, the one with the lower scoring suggested a level of technical these materials are which might be too much for lower literate rural people to take on.

On the overall, participants gave very high scorings on average for all points above. Those who scored very high marks are those with solar background. The other three participants have almost none to very limited knowledge of solar.

The participants' rating of the training materials based on the reaction survey responses are presented in Figure 1 below.





Other comments made on the reaction survey were as follow;

- Some of the Material is quite technical in nature and would not be able to be understood by many community trainees (e.g. solar irradiance, measurement units of voltage, electrons in current etc.). For thee very technical areas, it is suggested that the manual provide training approaches which can demonstrate the concepts, without introducing technical jargon, for example use of models with household goods, role plays and other interactive activities.
- The training guides are very long, therefore not able to cover most of them to provide good feedback.
- For further clarification, levels training is needed to be determined by participants' knowledge and skills.
- Add case study of a woman engaged in solar power operations and maintenance or installation.

**Table 1: Recommendations for additions to the Training Manuals**

Topics to be added	Which Chapter	Reason for the addition
Relevance of Solar to Climate Change	Module 1 (2)	Climate change is a major topic, and even grassroots communities understand that there is a link between reducing emissions through solar and bringing climate resilience.
Buying parts and pieces	Module 1 (8)	Often, a major impediment to sustainable use of solar systems is the ability to source parts and pieces, in addition to the section on buying whole systems, there should be a section on buying parts and pieces, their normal prices and ways to source them.

Solar Dryer	Module 1 (5)	In addition to a solar cooker, it would be useful to include information on solar dryers which are commonly used in Melanesian communities for products like kava, peanuts, cacao and fruits. These are easy to build and maintain and bring income and food security benefits
Safe disposal	Module 1 (8)	Batteries and other solar parts contain toxic and harmful substances, which could degrade local environments and cause health issues if not properly disposed of. In addition to discussing Battery maintenance issues, it would be useful to discuss best practice disposal processes, including some common Melanesian uses (good and bad) of batteries like remolding of lead for fishing sinkers etc.

The reaction survey form sample is attached as Annex C to this report.

## 5 Results from the Workshop Evaluation

Seven workshop participants completed the workshop evaluation feedback. The responses received from are summaries according to the questions imposed as follows;

**a. Workshop objectives were stated clearly and met**

5 out of the 7 respondents stated that workshop objectives were stated clearly and met while 2 of them agree.

**b. The workshop was well organized.**

6 out of 7 strongly agreed that the workshop was well organized, while only 1 agreed, with no disagreements recorded.

**c. The workshop helped me to learn how to work effectively with my peers in a workshop setting.**

86% of the respondents strongly agreed that the workshop helped them learned how to work effectively with their peers in a workshop setting., compared to 24% who only agreed.

**d. The information and/or skills presented were relevant and useful**

Again 86% of the participants strongly agree to this statement that the information and skills presented were relevant and useful.

**e. The presenter(s) provided adequate time for questions and answered them satisfactorily.**

71% of the participants strongly agreed with this statement.

- f. **The presenter(s) modeled student-centered learning strategies and techniques both for community and technical level.**

71% strongly agreed

- g. **This workshop increased my knowledge and skills in Earth science.**

71% strongly agreed.

- h. **The information and/or skills presented were relevant and useful.**

86% also strongly agreed.

- i. **The workshop as presented was congruent with the workshop description.**

71% strongly agreed.

- j. **The presenter(s) allowed me to work with and learn from others.**

86% strongly agreed

- k. **The presenter(s) suggested ways to follow up the training.**

Only 43% strong agreed

- l. **The materials provided were useful for training in Solar O&M Basics.**

100% strongly agreed

- m. **The manuals were appropriate for the training at community level.**

Only 29% strongly agreed, but no disagreement.

- n. **The physical arrangements were adequate.**

57% strongly agreed

- o. **The activities suggested in the manuals will assist in the training**

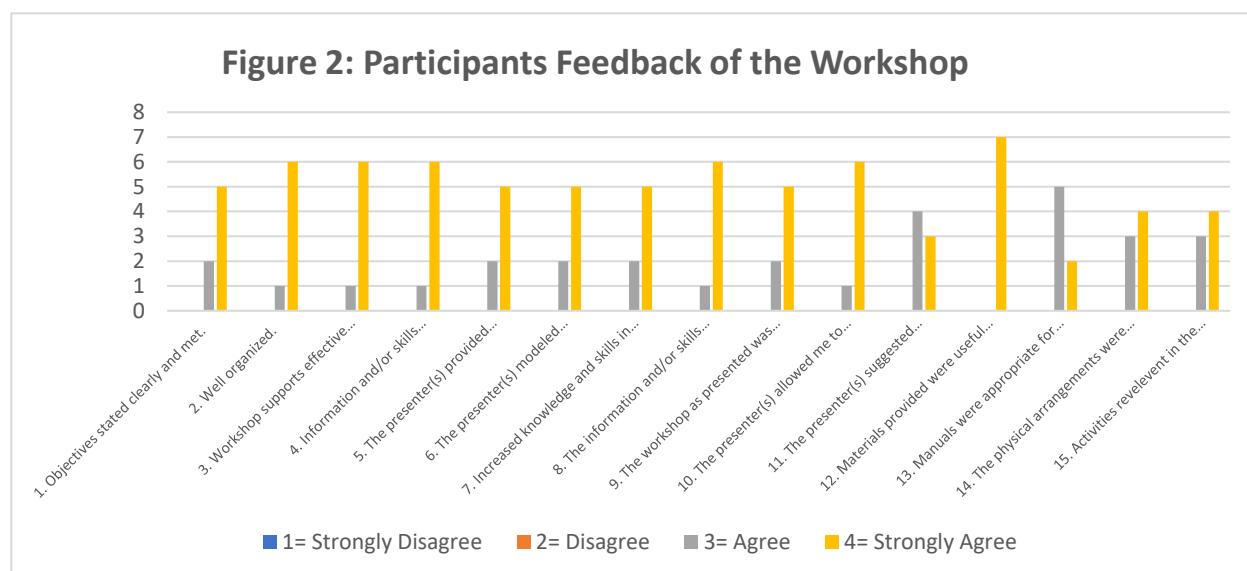
Again only 57% strongly agreed.

The summary of the feedback are presented in Table 2 below and Figure 2 below

Table 2: Participants Extend of Agreement with each Statement						
	1= Strong ly Disagr ee	2= Disagr ee	3= Agr ee	4= Stron gly Agree	Tot al	Ratio of Strong Agreem ent
1. Workshop objectives were stated clearly and met.	0	0	2	5	7	71%

2. The workshop was well organized.	0	0	1	6	7	86%
3. The workshop helped me to learn how to work effectively with my peers in a workshop setting.	0	0	1	6	7	86%
4. The information and/or skills presented were relevant and useful	0	0	1	6	7	86%
5. The presenter(s) provided adequate time for questions and answered them satisfactorily.	0	0	2	5	7	71%
6. The presenter(s) modeled student-centered learning strategies and techniques both for community and technical level.	0	0	2	5	7	71%
7. This workshop increased my knowledge and skills in Earth science.	0	0	2	5	7	71%
8. The information and/or skills presented were relevant and useful.	0	0	1	6	7	86%
9. The workshop as presented was congruent with the workshop description.	0	0	2	5	7	71%
10. The presenter(s) allowed me to work with and learn from others.	0	0	1	6	7	86%
11. The presenter(s) suggested ways to follow up the training.	0	0	4	3	7	43%
12. The materials provided were useful for training in Solar O&M Basics.	0	0		7	7	100%

13. The manuals were appropriate for the training at community level.	0	0	5	2	7	29%
14. The physical arrangements were adequate.	0	0	3	4	7	57%
15. The activities suggested in the manuals will assist in the training	0	0	3	4	7	57%



In terms of workshop rating, 100% of the participants rated it as excellent, and 100% of them also indicated that they would be very much using these training materials.

Other comments made included;

- Better if training is conducted in person
- Be willing to attend more trainings
- More time and effort on wiring and practical exercises
- Missing info. on breakers and their functions
- How to calculate load vs system specifications
- Interested to attend trainings in other modules like green economy
- Virtual workshop a bit difficult to do practical workshops
- Include more hands-on activities
- More information on participants' workbook so they could refer to them later.



The workshop evaluation form is attached as Annex D to this report.

## 6 Conclusion

The virtual ToT workshop was conducted successfully over the two days. The workshop was fruitful in terms of the outcome of discussions and feedback received from the participants on the two draft solar training modules.

In overall, the participants highly rated the workshop, with very good suggestions for improvement in terms of the training manuals.

In conclusion, may I personally offer my gratitude to my GGGI colleagues as well the PIDF team in Fiji, Solomon Island and Papua New Guinea for being part of the workshop team. A special thanks to Mr. Mohamad Tazil for facilitating this workshop, and the GGGI consultants who have helped put together the training materials, and finally a big thank you to Belinda Stride and Thompson Alick from PSC to help out with the workshop exercises.

## 7 List of Appendices

### Appendix A: Workshop Agenda

#### **Capacity building to strengthen sustainable implementation of Renewable Energy Technologies for Rural Energy Access.**

Pilot Training of Trainers Workshop

Date: 26<sup>th</sup> – 27<sup>th</sup> May 2020

#### Workshop Agenda- Day 1 (26<sup>th</sup> May 2020)

##### Module 1 – Solar and the Community

Time	Chapter	Lesson Type
8:15 - 8:20 am	1. Project Introduction	Mr. Paul Kaun (Senior Officer, GGGI)
8:20 – 8:30 am	2. Welcome Remarks	Ms. Jihi Kim (Country Director (Fiji) - KOICA
8:30 – 8:45 am	3. Ice breaker – Participant Introductions	Theory and activity 1
8:45 - 9:30 am	4. What is Solar Energy	Theory
		Activity 2
		Activity 3
9:30 - 10:00 am	5. Basics of Electricity	Theory
		Activity 4
10:00 - 10:15 am	Tea Break	
10:15 - 11:30 am	6. Components of Solar Power systems	Theory
		Activity 5
11:30 - 1:00 pm	7. Types of Solar Systems	Theory
		Activity 6
1:00 - 1:30 pm	Lunch Break	
1:45 - 3:00 pm	8. Measurements and Test Equipment	Theory
		Activity 7A (optional)
		Activity 7B
		Activity 8
		Activity 9 (Optional)
3:00 - 3:15 pm	Theory on Safety	
3:15 - 4:15 pm	9. Purchasing Solar Power Systems	Theory

		Activity 10
4:15 - 5:00 pm	10. Maintenance of Home Solar Systems	Theory
		Activity 11
		Activity 12 (Optional)

### Workshop Agenda- Day 2 (20<sup>th</sup> May 2020)

#### Module 2: Solar Operations and Maintenance

Time	Chapter	Lesson Type
8:15 - 8:45 am	1. A. Feedback from Yesterday's Sessions- B. Ice Breaker - Introductions	Theory and Activity 1
8:45 - 10:00 am	2. Components of Solar Power systems	Theory
		Activity 2
		Activity 3
		Activity 4
10:00 - 10:15 am	Tea Break	
		Theory
		Activity 5
10:15 - 11:30 am	3. Component Requirements	Activity 6
		Activity 7
		Activity 8
11:30 - 12:30 pm		Theory
	4. Types of Solar PV Systems	Activity 9
		Activity 10
12:30 - 1:00 pm	5. Tools used in Solar PV System	Theory
		Activity 11
1:00 - 1:30 pm	Lunch Break	
1:30 - 2:00 pm	6. Installing Solar PV systems	Theory
2:00 - 3:15 pm	7. Safety Requirements of Solar PV Systems	Theory
		Activity 12
3:15 - 3:30 pm	Tea Break	
3:30 - 4:30 pm	8. Identifying and Resolving common faults in solar home PV systems	Theory
		Activity 13

4:30 - 5:00 pm	9. Solar PV Maintenance checklist	Theory
		Activity 14

## Annex B: Participants List

Name	Organisation
Belinda Stride	Pacific Communications Solutions (PCS)
Thomson Alick	Pacific Communications Solutions (PCS)
Erica Loli	intern, DSPPAC
Hannah Tamata	Consultant
Stephen Mataitini	Pacific Vocational Training school
Wade Evans	INTV principal
Christopher Bartlett	Consultant

## Appendix C: Reaction Survey Form sent to participants

### Project: Capacity Building to Strengthen Sustainable Implementation of Renewable Energy Technologies for Rural Energy Access

Workshop for review of two training modules on “Solar in the Community” and “Solar O&M Basics”

#### Reaction Survey Form of Training Manuals

Dear Trainer,

Congratulations on being selected to attend the *Workshop on the Review of draft Training Modules for "Solar in the Community" and "Solar O&M basics"*!

**As a preliminary requirement before the workshop**, you are requested to have a read through the draft training manuals and capture your first thoughts on the relevance of the training materials provided through this reaction survey and **bring this filled form with you on the 1<sup>st</sup> day of the workshop.**

The objective of this evaluation of the training manuals by you, as the participant, assesses how they “feel” regarding the manuals.

Also called “smile sheets”, reaction surveys measure your immediate perceptions as a participant and trainer, of the quality and usefulness of the training material and also enables you to come prepared to actively participate during the duration of the workshop.

Name: \_\_\_\_\_

Country: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

Please give 1 to 5 ranking ( ✓ ), 1 being the lowest and 5 being the highest						
Your perceptions of the following after going through the Drafts:		1	2	3	4	5
1	Relevance to your work					
2	Comprehension (Understandable Language) of Training Manual					
3	Sufficiency of Manual Coverage (Are enough topics covered)					



4	<b>Quality</b> of Illustrations					
5	<b>Relevance of illustrations</b> to Thematic Area (topic)					
6	<b>Ease to present</b> effectively as a trainer to the community					
7	<b>Understanding</b> (Grasp) of the Thematic Area (topic)					
8	<b>Usefulness</b> in your work to use/train for the community					
9	<b>Practicality</b> of these trainings for your country/community					
10	<b>Level of interactive activities</b> in the Training Manuals					

**Recommendations for additions to the Training Manuals (if any)**

Topics to be added	Which Chapter	Reason for the addition

**Recommendations for Edits or Deletions to the Training Manuals (if any)**

Topics to be added	Which Chapter	Reason for the edits or deletion

**Further Clarifications**

1. *List any points or questions, that you may need to be explained, for better understanding during the workshop.*

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2. Thank you for taking the time to assess the Draft Training Manuals and for filling this reaction survey form. **Don't forget to bring this filled form along with you to the 1<sup>st</sup> day of the workshop.**
3. We look forward to your valuable presence at the workshop!
4. *Vina'ka, Tank iu tumas, tenk yu tru, Tangkyu Tangkyu tumas*

## Appendix D: Workshop Evaluation form filled by Participants

### Project: Capacity Building to Strengthen Sustainable Implementation of Renewable Energy Technologies for Rural Energy Access

Workshop for review of two training modules on “Solar in the Community” and “Solar O&M Basics”

#### Workshop Evaluation Form

Dear Participant,

We convey our appreciation at your attendance and valuable contributions in the *Workshop on the Review of Training Manuals for Solar in the Community and Solar O&M Basics*.

**As a concluding requirement of the workshop**, you are now requested to share your experience of this workshop by filling in this evaluation form.

The purpose of this evaluation of the workshop will enable us to assess if we have successfully attained the objectives of this workshop and also assist in evaluating if any further improvements are required.

Name: \_\_\_\_\_

Country: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

5. Please respond to the following statements by using the 4-point rating scale to indicate the extent to which you agree or disagree with each statement. Please circle the number that applies.

**4= Strongly Agree**

**3= Agree**

**2= Disagree**

**1= Strongly Disagree**

1. Workshop objectives were stated clearly and met.	4	3	2	1
2. The workshop was well organized.	4	3	2	1

3. The workshop helped me to learn how to work effectively with my peers in a workshop setting.	4 3 2 1
4. The information and/or skills presented were relevant and useful	4 3 2 1
5. The presenter(s) provided adequate time for questions and answered them satisfactorily.	4 3 2 1
6. The presenter(s) modeled student-centered learning strategies and techniques both for community and technical level.	4 3 2 1
7. This workshop increased my knowledge and skills in Earth science.	4 3 2 1
8. The information and/or skills presented were relevant and useful.	4 3 2 1
9. The workshop as presented was congruent with the workshop description.	4 3 2 1
10. The presenter(s) allowed me to work with and learn from others.	4 3 2 1
11. The presenter(s) suggested ways to follow up the training.	4 3 2 1
12. The materials provided were useful for training in Solar O&M Basics.	4 3 2 1
13. The manuals were appropriate for the training at community level.	4 3 2 1
14. The physical arrangements were adequate.	4 3 2 1
15. The activities suggested in the manuals will assist in the training	4 3 2 1

16. How would you rate this workshop? (please check one)	<input type="checkbox"/> Excellent <input type="checkbox"/> Good <input type="checkbox"/> Very Good <input type="checkbox"/> Not Good
17. How comfortable are you with using the manuals presented in this workshop for training?	<input type="checkbox"/> Very <input type="checkbox"/> Not at all <input type="checkbox"/> Somewhat
6. 18. Areas/topics about which you would like to receive further training:	

19. Suggestions for improving this workshop:
20. Do you consent for your contact details to be added to our project data base for further training and engagements in the Thematic Area?

## Appendix E: Workshop Presentation slides

### Vanuatu Pilot Training of Trainers Feedback Workshop

Capacity Building to Strengthen Sustainable  
Implementation of Renewable Energy  
Technologies for Rural Energy Access



## Project Overview



***Paul Kaun***

***Senior Program Officer – Vanuatu, (Vanuatu Project Coordinator)***



## Project Objective and Method



Objective: To strengthen informed and inclusive decision-making by resource owners and local government officials for integration of Green Economy (GE) and Renewable Energy (RE) into Local Level Planning and to Strengthen Implementation of Renewable energy (RE) infrastructure for Rural Electrification

This will be achieved through the development and delivery of 10 training modules, consisting of 4 modules in Green Economy and 6 modules in Renewable Energy.

### Methodology

- Four countries (Fiji, Solomon Islands, Vanuatu, PNG)
- Train-the-trainer approach (~4 trainers in each country)
- Goal of 3000 people trained
- Target audiences: community leaders, vulnerable groups (women's groups leaders, youth leaders), local government leaders, local technicians and small businesses

## Training Modules



Green Economy Module
- General Principles
- Energy Efficiency Basics
- Green Business Basics
- Inclusive Development
Renewable Energy Module
- RE General Principles
- Solar in the community
- Pico hydro in the community
- Solar O&M basics
- Pico hydro O&M basics
- RE Financial management

## Target Audiences



- Sub-national officials
- Provincial officers
- District officers
- Town counselors



- Existing small businesses
- Private sector leaders
- Potential entrepreneurs



- Village/community leaders
- Women's group leaders
- Youth leaders
- Other vulnerable group leaders



- Existing technicians
- Those with electrical/mechanical aptitude
- Those interested to learn technicals

## Training Modules



GE Module	Local government officials	Traditional/community leaders	Small businesses	Local technicians
- General Principles	X	X	X	X
- Energy Efficiency Basics	X	X	X	X
- Green Business Basics			X	
- Inclusive Development		X	X	
RE Module				
- RE General Principles	X	X	X	X
- Solar in the community	X	X	X	
- Pico hydro in the community	X	X	X	
- Solar O&M basics				X
- Pico hydro O&M basics				X
- RE Financial management	X		X	

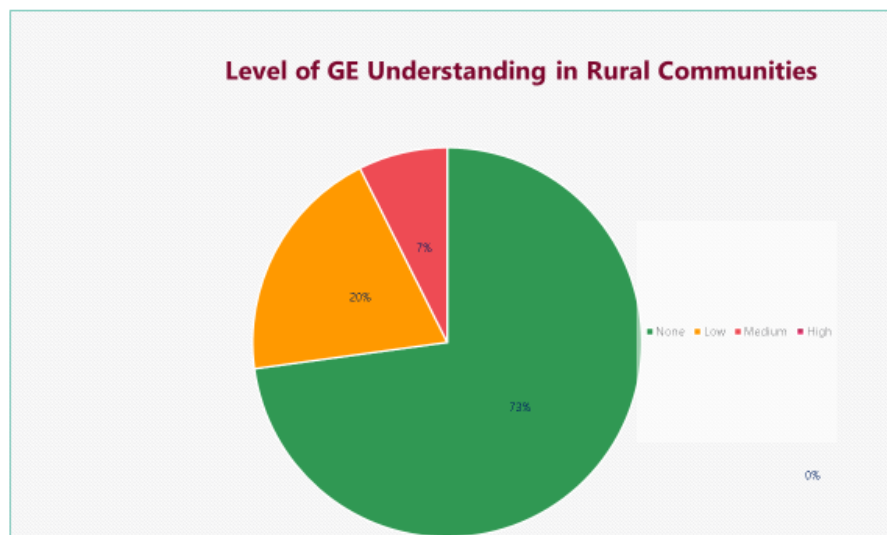


## Target locations - Vanuatu

A total of fifteen (15) selected sites had been discussed in the national stakeholder workshop in May 2020, out of which thirteen (13) sites have been approved by the Ministry of Climate Change for this capacity building project in Vanuatu as listed below, whilst other two are set aside as reserved. Only four (4) sites were selected for the pre-implementation survey exercise which are highlighted in red below, conducted in late 2019.

- |  |                                   |
|--|-----------------------------------|
| • <b>Malao, Big Bay Area, Santo Island</b> | <b>Tisman, Malekula</b>           |
| • <b>Hogharbor, Santo Island</b>           | Wintua, Southwest Bay, Malekula   |
| • Small Nanuku, Malo Island                | Utas, SE Ambrym                   |
| • Parisa, South Santo                      | Morua, Tongoa                     |
| • Craig Cove, West Ambrym                  | Liro, Paama (reserved)            |
| • Lolong, Pentecost                        | Beterara, Maewo Island (reserved) |
| • Melsisi, Pentecost                       |                                   |
| • Pangi, Pentecost                         |                                   |
| • <b>Vinmavis, Malekula</b>                |                                   |

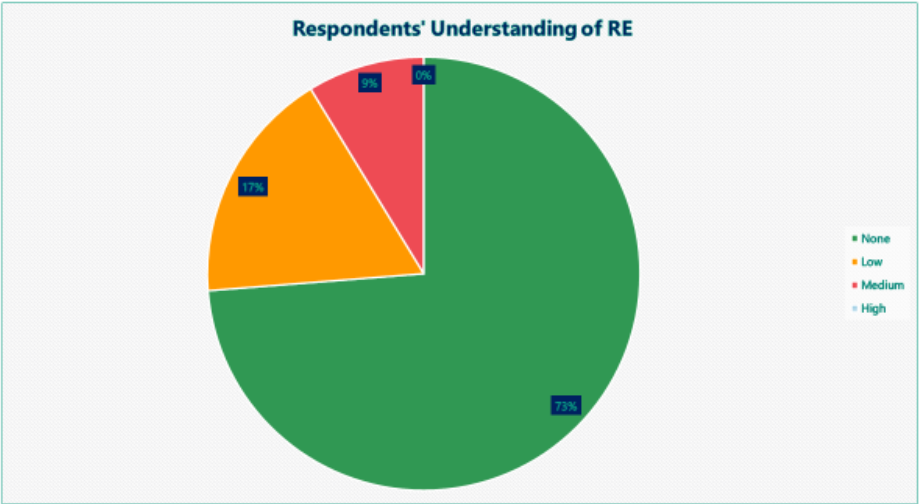
## Pre-Implementation Survey Results



# Pre-Implementation Survey Results



# Pre-Implementation Survey Results



## Pre-Implementation Survey Results



## Overall Schedule and Key Dates

Activity	2019	2020	2021
Review existing materials and develop new modules			
Selection of target locations			
Needs assessment			
Pilot Train the trainer Workshop + Feedback			
Pilot Training (100-150/country)			
Regional Workshops			
Final review of modules + Translations			
Main Training of trainer Workshops			
Main Community trainings			

# Training Materials - Approach



- Objectives for training materials
  - Interactive: at least 2/3 of the training time should be interactive vs. lecture format (interactive activities include games, exercises, storytelling, groupwork, facilitated discussions, roleplaying, etc.)
  - Actionable: provide information/actions that people can use in their daily lives right away
  - Tailored and tailorable: specific to the current knowledge level, needs, culture, community structure, etc., of participants, can be modified by trainers as needed
- Next steps
  - Development of training modules underway (ending June 30<sup>th</sup>)
  - Pilot training of remote communities (July-Aug). Trainers for pilot trainings to be hired in June
  - Regional Workshop, final review of modules and translations (Sep-Oct)
  - Main training of trainers (Nov-Dec). Trainers for main training to be hired in December
  - Main training of remote communities 2021 onwards

**Thank You**



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