

Mona









### POST-WORKSHOP REPORT

### RAINWATER HARVESTING

CLIMATE AND WATER
QUALITY RISK ASSESSMENT
& DESIGN FOR IMPROVING
HOUSEHOLD WATER
SECURITY

### **CLIENT:**

CARIBBEAN REGIONAL TRACK OF THE PILOT PROGRAMME FOR CLIMATE RESILIENCE (PPCR), UNIVERSITY OF THE WEST INDIES MONA/CARIBBEAN PUBLIC HEALTH AGENCY

Issue Status: Final

Prepared by: Clive Carpenter Issue Date: 1st March 2020

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### INTRODUCTION

A one-day workshop entitled, "Rain Water Harvesting – Climate and water quality risk assessment & design for improving household water security" was held on December 16, 2019 at the Department of Fisheries Conference Room, Sans Souci, St. Lucia. The workshop was hosted by the Caribbean Regional Track of the Pilot Programme for Climate Resilience (CRT-PPCR) in collaboration with the Caribbean Public Health Agency (CARPHA) through the GWP Consultants. Theobalds Consulting Limited, the local consultants, executed the event. This report presents a summary of the workshop proceedings as well as feedback from the attendees.

- Climate and water quality risk assessment & design for improving household water security" was held (in) St Lucia<sup>99</sup>

A one-day

workshop

entitled, "Rain

**Water Harvesting** 

### **WORKSHOP OVERVIEW**

A total of 29 invitations were sent; 13 to attendees of the previous two workshops and 16 to a variety of professional organizations, government ministries and contractors. Follow-up calls were done and 21 persons were eventually confirmed for the workshop, however, 15 attended. The decrease in attendance numbers could be attributable to the prior holiday weekend in addition to the placement of the workshop within the week before Christmas. Despite the lower than expected numbers, the attendees were engaging and open, which resulted in a successful workshop.

Attendees received quite well, the Risk assessment checklist and the Engineers in the group expressed their excitement with the excel tool. For a few, this workshop was their first introduction to Rain water harvesting (RWH) and consequently, whilst intrigued by the content of the presentations, was expecting more of a "how to" guide to RWH.

Photos taken during the seminar are presented in Appendix 5.3.



### 3 DISCUSSIONS

Throughout the day, numerous discussions ensued with the following points being highlighted.

- RWH demos have been installed in a number of health facilities however they do not remain effective due to lack of regular maintenance.
- RWH as a climate resilience measure was exhibited in 2010 when during the aftermath of Hurricane Tomas, health centers with RWH systems were the only ones able to function.
- Periodic testing of treated rainwater should be considered to ensure that the households are accurately and effectively treating the collected water for drinking. CARPHA and Ministry of Health were cited as potential agencies to be responsible for the testing.
- Households should also be made of the need to implement conservation measures to ensure that the collected water is used in an efficient manner and not wasted.
- A recommendation was made to include the installation of a RWH system as a requirement for DCA approval.

  Alternatively it could be included in the building code.
- Plumbing installation should require inspection and certification akin to the existing process of electrical inspection and certification prior to getting connected to the electrical grid.
- To encourage replication and "buy-in" to the RWH movement, incentive programs need to be activated. e.g. income tax deduction when installed (similar to the solar water heaters) or waver of duties for RWH materials / components.
- Integrity of the roof needs to be ensured prior to the installation of a RWH system.
- Maintenance plans are imperative as RWH risks are not static they require regular assessment and revision.
- ▶ The potential location for the demo project was discussed. Attendees proposed the use of a school as demos have been done on health facilities. Also, through the use of the school it would encourage education and public awareness of RWH.

### **4** ATTENDEES SURVEY

At the end of the workshop, attendees were given a feedback form to complete. 12 forms were returned which can be in Appendix 5.4.

Overall, the seminar was well received, with participants giving positive feedback. Participants were satisfied with the quality of the seminar, the presenter and the content. A more detailed analysis of the feedback forms is provided in Appendix 5.4.



### **APPENDIX 1**

**INVITEES LIST** 

AGENCY	CONTACT PERSON	EMAIL
Water and Sewerage Company Inc (WASCO)	Jean Farrell	jeanfarrell@wascosaintlucia.com
Water and Sewerage Company Inc (WASCO)	Shantal Gaston	shantalgaston@wascosaintlucia. com
Ministry of Physical Planning	David Alphonse	dalphonse@gosl.gov.lc
Department of Sustainable Development	Snaliah Mahal	snaliahmahal.sde@gmail.com
Department of Equity	Lenita Joseph	ljoseph@gosl.gov.lc
		most@gosl.gov.lc
Saint Lucia Meteorological Services (SLMS)	Andre Joyeux	andre.joyeux@govt.lc
Ministry of Physical Planning	Suzanna Aurelien	saurelien@gosl.gov.lc
Caribbean Water & Sewerage Association Inc (CAWASA)	Ignatius Jean	ijean@cawasa.org
Water Resource Management Agency (WRMA)	Jason Ernest	jason.ernest@govt.lc; jasonernest2000@yahoo.com
Water and Sewerage Company Inc (WASCO)	Peter Norville	peternorville@wascosaintlucia.com
Central Statistics Office	Linn Brown	linnbrownn@gmail.com; linn.brown@govt.lc
Central Statistics Office	Uranda Xavier	uranda.xavier@govt.lc
Central Statistics Office	Sean Mathurin	sean.mathurin@govt.lc
Ministry of Infrastructure	lvor Daniel	ps.infrastructure@govt.lc
Ministry of Housing	Agosta Degazon	gaugustin@gosl.gov.lc
Ministry of Physical Planning	Hildreth Lewis	hildreth.lewis@govt.lc plionel@gosl.gov.lc
Ministry of Health and Wellness (Environmental Health - Vector	Cyprian Felix St. Hill	environmental.health@govt.lc

AGENCY	CONTACT PERSON	EMAIL
National Emergency Management Organisation (NEMO)	Dorine Gustave	dgustavee@gosl.gov.lc
Organisation (NEWO)		mmedard@gosl.gov.lc
Saint Lucia Institute of Architects	Jeremiah Phulchere	SLIA.SLU@GMAIL.COM
Association of Professional Engineers of St. Lucia	Joe Lindberg	engineers.stlucia@gmail.com
Prudy's Construction Services Ltd	Prudence Montrope	prudencemontrope@gmail.com
		pertrusedward@hotmail.com
Construction & Industrial Equipment Ltd (CIE LTD)	Anselm Clauzel	aclauzel@cie-rgltd.com
Integrated Development & Construction Ltd (IDC LTD)	Emma Charles	emma@idcslu.com
R & F Construction Ltd	Randolph Mater	r_fconstruction@hotmail.com
J A Kyle Construction Ltd		jakyleconstruction@gmail.com
BLD Designs	Larry Shepherd	bldesigns.es@gmail.com
RECS General Contractors	Winston Cyril	winstoncyril@gmail.com
Rene's Construction	Martin Renee	renee.construct@gmail.com
Kurt's Construction Inc.	Kimron Mondesir	kurtsconstructioninc@gmail.com



### **APPENDIX 2**

ATTENDANCE REGISTER









### PPCR

## Rainwater Harvesting

# Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

Last Name	First Name	Company	Email	Contact #
SHEPHCRD	LAPEY	& Designs	bldesions. es @ omail. com	714-1785
GASTON	CHANTAC	M.A.S.C.O.	Shantalogostong wiscossim luigian 5190913	5190913
ALPHONSE	DANG	PHYSICA PLANE	PHYSICA PLANNING dalphones @ 9051.900.16 4689995/71578	488648/1157
BROWN	LINN	CSO	lim.brown @gout-1c	4681577
Felicien	Letha	050	letha felicien Garat. L	1981861
REGIS	HUMPHAGY	ARCH. SECTION	humphrey-regis pout. (c	285-7921
EDWARD	PETRUS	PRUDY'S LONSTR.	PRUDY 15 consta. Petrusedward as Hormail 461-0175	461-0175
- Karamilla	1400308	K. 4. D.	RASCEDING @ QUANTI CON 2852397	1455597
THO MPSON	MACIKA	CARPHA (EHSD)	thomasma a carpha.org 484-42-40	484-42-4
ERNEST	JASON	MRMA	Josen. Grast D. Sovt. 1c	724-5479
JOSEPH	SHEMMA	Met Services	Shemmameluce@gmail.com 7181117	41117
Hondesir	Giselle	TK TK	asolle destucion asusis.	-3018118-
Hant	Hubert	Sugasmoture		730 1457
Saara	Beach	CARPHA	esages best ce bla : or	7172313







# Climate and Water Quality Risk Assessment & Design for Improving Household Water Security Rainwater Harvesting

First Name Company  LEMATING CHUNAS A I	Email (c) Contact # (e)	1 22an @ Cawas A. Org 485 6504 /4580601							
	+	+							
	+	1							



### **APPENDIX 3**

**PHOTOGRAPHS** 















### **APPENDIX 4**

FEEDBACK FORMS

### BREAKDOWN OF RESPONSES FROM EVALUATION FORMS

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1.	The workshop met my expectations.	4	8	-	-	-
2.	I will be able to apply the knowledge learned.	8	3	1	-	-
3.	The material covered is useful.	6	6	-	-	-
4.	The material presented is beneficial to promoting the implementation of RWH.	9	3	-	-	-
5.	The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.	8	4	-	-	-
6.	The information outlined in the Quality Approach to RWH climate & water risk assessment was clear and informative.	8	4	-	-	-
7.	The information outlined in the Quantity Approach to RWH climate & water risk assessment was clear and informative.	8	3	1	-	-
8.	The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.	4	8	-	-	-
9.	The excel calculator for sizing rainwater tanks was clear and easy to use.	6	5	1	-	-
10.	The presentations and materials were pertinent and useful	5	7	-	-	-
11.	The quality of instruction was good.	8	4	-	-	-
12.	The instructor responded well to questions.	8	4	-	-	-
13.	Time management was good.	10	2	-	-	-

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
How do you rate the course overall?	6	6	-	-	-

	Yes	No
Was this your first introduction to rain water harvesting?	5	7

	Male	Female
Gender	8	4









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

### PARTICIPANT EVALUATION

Location: SAINT LUCIA Date:16 DECEMBER 2019

Participant evaluations are a vital part of monitoring the training program. Without feedback from you, it is impossible to refine and improve the training. Please answer this anonymous and confidential questionnaire as carefully as possible.

		Strongly	Agree	Neutral	Disagree	Strongly
S	Training Programme and Content	Agree	11.0 <b>#</b> 0.131			Disagree
	The workshop met my expectations.	0	0	0	0	0
	2. I will be able to apply the knowledge learned.		0	0	0	0
Ş	3. The material covered is useful.	0	0	0	0	0
15	The material presented is beneficial to promoting the implementation of RWH.	0	0	0	o	0
	<ol> <li>The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	0	0	0	0	0
90	<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>		0	0	0	0
88	<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	•	0	0	0	0
	<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	0	0	0	0	0
	<ol> <li>The excel calculator for sizing rainwater tanks was clear and easy to use.</li> </ol>	0	0	0	0	0
	The presentations and materials were pertinent and useful	0	•	0.	0	0

Quality of Preser	ntations					
11. The quality of ins	struction was good.		0	0	0	0
12. The instructor res	The instructor responded well to questions.			0	0	0
13. Time manageme	nt was good.	9	0	0	0	0
General						
20. How do you rate	the course overall?					
Excellent	Good O	Average O		Poor O	Very	poor
21. What aspects of	the training could be im	proved? Pleas	e make	recommer	idations	
		THE RESERVE AND A STREET				
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	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Training Programme and Content	ESTABLE.				
The workshop met my expectations.	0	0	0	0	0
2. I will be able to apply the knowledge learned.	ø	0	0	0	0
3. The material covered is useful.	0	0	0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>	0	0	0	0	0
<ol> <li>The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	٥	0	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	o	0	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	0	0	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	0	0	0	0	0
<ol><li>The excel calculator for sizing rainwater tanks was clear and easy to use.</li></ol>	0	0	0	0	0
<ol> <li>The presentations and materials were pertinent and useful</li> </ol>	•	0	0	0	0

<ol><li>The quality of instruction was</li></ol>	as good.	0	0	0	0	0
12. The instructor responded w	ell to questions	. 0	0	0	0	0
13. Time management was goo	Time management was good.		0	0	o	0
General						
20. How do you rate the course	overall?					
Excellent G	ood /	Average O		Poor O	Very	poor
21. What aspects of the training	g could be imp	roved? Plear	se make	recomme	ndations	
1 1 -1 - 1 1 1 1 1 1 1	NAS	EXP/Ai	( Se vi	1 T W	AS TO	DNE
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	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Training Programme and Content					
The workshop met my expectations.	0	6	0	0	0
2. I will be able to apply the knowledge learned.	0	0	6	0	0
The material covered is useful.	0	8	0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>	6	0	0	0	0
<ol> <li>The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	0	8	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	6	0	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	o	6	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	0	8	0	0	0
<ol><li>The excel calculator for sizing rainwater tanks was clear and easy to use.</li></ol>	0	0	0	0	0
<ol> <li>The presentations and materials were pertinent and useful</li> </ol>	0	8	o	0	0

Quality of Presentations			/	17523	1000	- 33
<ol> <li>The quality of instruction was go:</li> </ol>	od.	0	0	0	0	0
12. The instructor responded well to	questions.	0	0	0	0	0
13. Time management was good.		6	0	0	0	0
General						
<ol><li>How do you rate the course over</li></ol>	rall?					
Excellent Good	Aver	age		Poor	Very	poor
21. What aspects of the training cou	And the section is a second	an ma			obstance	
for sizing rainfall		nks	( in t	he co	alaila	ter
		n ks	l in t	he co	alaila	ter









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

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Training Programme and Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Training Programme and Content		89			
The workshop met my expectations.	0	0	0	0	0
2. I will be able to apply the knowledge learned.	0	0	0	0	0
3. The material covered is useful.	0	0	0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>	2	0	0	0	0
<ol> <li>The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	0	0	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	0	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	0	0	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	9	0	0	0	0
<ol><li>The excel calculator for sizing rainwater tanks was clear and easy to use.</li></ol>	0	0	0	0	0
<ol> <li>The presentations and materials were pertinent and useful</li> </ol>	0	0	Ø.	0	0

the section		~	0	0	0	0
. The quality of ins	truction was good.	9	32	O	0	9
2. The instructor rea	The instructor responded well to questions.		0	0	0	0
3. Time manageme	Time management was good.		0	0	0	0
General						
0. How do you rate	the course overall?					
Excellent		Average		Poor	Very	poor
0.00	the training could be imp				1,000.00	
Participant pro	file	1	a Fema	le		
☐ Male		anusching?	a∕ Fema	le		
☐ Male	file ntroduction to rain water h	arvesting?	<b>a</b> Fema	le		









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

### PARTICIPANT EVALUATION

Location: SAINT LUCIA Date:16 DECEMBER 2019

Participant evaluations are a vital part of monitoring the training program. Without feedback from you, it is impossible to refine and improve the training. Please answer this anonymous and confidential questionnaire as carefully as possible.

Trai	ning Programme and Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	e workshop met my expectations.	•	0	0	0	0
2. I w	vill be able to apply the knowledge learned.	0		0	0	0
3. Th	ne material covered is useful.		0	0	0	0
	ne material presented is beneficial to romoting the implementation of RWH.		0	0	0	0
5. Th	ne information outlined in the Introduction to ainwater Harvesting Component Design as clear and informative.	0	0	0	0	0
A	e information outlined in the Quality pproach to RWH climate & water risk seessment was clear and informative.	0	•	0	0	0
A	e information outlined in the Quantity pproach to RWH climate & water risk ssessment was clear and informative.	ø	0	0	0	٥
ap	e information outlined in the practical proach to tank sizing and drought risk duction was clear and informative.	0	0	0	0	0
	ne excel calculator for sizing rainwater tanks as clear and easy to use	0	0	0	0	0
	The presentations and materials were ertinent and useful	0	9.	ø	0	0

11. The quality of ins	truction was good.	0		0	0	0
12. The instructor res	The instructor responded well to questions.		0	0	0	0
13. Time manageme	Time management was good.		0	0	0	0
General						
20. How do you rate	the course overall?					
Excellent	Good	Average		Poor	Very	poor
0.70	the training could be im	~		250		
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go deve	e excel calou manner mo reule graphs by of slowles	ape inc	nde	an e	vercise.	ie Simulahti









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

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	Strongly	Agree	Neutral	Disagree	Strongly Disagree
Training Programme and Content	270				MERSON AND S
The workshop met my expectations.	P	0	0	0	0
2. I will be able to apply the knowledge learned	. 😼	0	0	0	0
3. The material covered is useful.	0	10	0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>	1	0	0	0	0
<ol> <li>The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	0	10	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	D	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	A	0	0	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	B	0	0	0	0
<ol><li>The excel calculator for sizing rainwater tank was clear and easy to use.</li></ol>	5 8	0	0	0	0
<ol> <li>The presentations and materials were pertinent and useful</li> </ol>	S	0	0	0	0

uality of Present 1. The quality of instr		Pa	0	0	0	0
2. The instructor resp	conded well to questio	ns. 3	0	0	0	0
3. Time managemen	t was good.	B	0	0	0	0
eneral						
). How do you rate the	he course overall?					
Excellent	Good	Average		Poor	Very	poor
120	18	75		330	0.20	
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BE ann &	t would his on the pool pres	ike to system	see de voir	so sgi	me h S. Be	a one
	es on the	ike to system	see de	50 1585'r	me h	at.









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

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		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Training	Programme and Content					
1. The wor	kshop met my expectations.	9	0	0	0	0
2. I will be	able to apply the knowledge learned.	0	0	0	0	0
3. The mar	terial covered is useful.	10	0	0	0	0
	terial presented is beneficial to ng the implementation of RWH.	0	9	0	0	0
Rainwa	rmation outlined in the Introduction to ter Harvesting Component Design ar and informative.	0	0	o	0	0
Approa	rmation outlined in the Quality of to RWH climate & water risk ment was clear and informative	1	0	0	0	0
Approa	rmation outlined in the Quantity on to RWH climate & water risk ment was clear and informative.	0	o	o	0	0
approac	rmation outlined in the practical ch to tank sizing and drought risk on was clear and informative.	0	9	*N	0	0
	el calculator for sizing rainwater tanks ar and easy to use.	0	5	0	0	0
	esentations and materials were nt and useful	0	0/	0	0	0

ality of Presenta		_/			1000	-
The quality of instru	uction was good.	0	0	0	0	0
The instructor resp	onded well to question	s. 8	0	0	0	0
Time management	was good.	8	0	0	0	0
eneral						
How do you rate th	e course overall?					
Excellent V	S2775.TA	Average O		Poor	Very	poor
	e training could be imposed of the power p		_			·S
			_			5

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### RAINWATER HARVESTING

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Participant evaluations are a vital part of monitoring the training program. Without feedback from you, it is impossible to refine and improve the training. Please answer this anonymous and confidential questionnaire as carefully as possible.

· ·	raining Programme and Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
2	raining Programme and Content					
1	. The workshop met my expectations.	0	8	0	0	0
2	I will be able to apply the knowledge learned.	V	0	0	0	0
3	The material covered is useful.	d	0	0	0	0
4	. The material presented is beneficial to promoting the implementation of RWH.	0	0	0	0	0
5	The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.	6	0	0	0	0
6	The information outlined in the Quality Approach to RWH climate & water risk assessment was clear and informative.	1	0	0	0	0
7	The information outlined in the Quantity Approach to RWH climate & water risk assessment was clear and informative.	8	o	0	0	0
8	The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.	6	0	0	0	0
9.	The excel calculator for sizing rainwater tanks was clear and easy to use.	8	0	0	0	0
11	The presentations and materials were pertinent and useful	9	0	0	0	0

unlike of Decempotations				
uality of Presentations				200
The quality of instruction was good.	0 0	0	0	0
2. The instructor responded well to questions.	00	0	0	0
s. Time management was good.	0	0	0	0
eneral				
). How do you rate the course overall?				
Excellent Good Ave	erage	Poor	Very	poor
What aspects of the training could be improve				
A working example by to Calculate the Volume house hold.	of water	roed	led by	0 ~
Calculate the Volume house hold.	of water	roco	led by	000

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### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

### PARTICIPANT EVALUATION

Location: SAINT LUCIA Date:16 DECEMBER 2019

Participant evaluations are a vital part of monitoring the training program. Without feedback from you, it is impossible to refine and improve the training. Please answer this anonymous and confidential questionnaire as carefully as possible.

Training Programme and Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
rraining Programme and Content					
The workshop met my expectations.	0	0	0	0	0
2. I will be able to apply the knowledge learned.	0	0	0	0	0
The material covered is useful.	0	0	0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>	0	0	0	0	0
<ol> <li>The information cutlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	0	0	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	6	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	0	ø	0	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	0	0	0	0	0
<ol><li>The excel calculator for sizing rainwater tanks was clear and easy to use.</li></ol>	0	p	0	0	0
<ol> <li>The presentations and materials were pertinent and useful</li> </ol>	0	ø	0	0	0

1. The quality of ins	truction was good.	0	,0	0	0	0
2. The instructor res	sponded well to question	ns. O	0	0	0	0
3. Time manageme	nt was good.	0	0	0	0	0
eneral						
0. How do you rate	the course overall?					
Excellent	Good	Average O		Poor O	Very	poor
1 What aspects of						
	the training could be im	proved? Plea	se make r	ecommer	ndations	
	the training could be im	proved? Plea	se make n	ecommer	ndations	









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

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	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
Training Programme and Content					
The workshop met my expectations.		0	0	0	0
2. I will be able to apply the knowledge learned		0	0	0	0
3. The material covered is useful.	0		0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>		0	0	0	0
<ol> <li>The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.</li> </ol>	•	0	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	•	0	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	•	0	0	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	0	•	0	0	0
<ol><li>The excel calculator for sizing rainwater tank was clear and easy to use.</li></ol>	* 0		0	0	0
10. The presentations and materials were pertinent and useful		0	0	0	0

uality of Presentation	5					
1. The quality of instruction	was good.		0	0	0	0
The instructor responded well to questions.		s. O		0	0	0
3. Time management was good.		0		0	0	0
General						
0. How do you rate the cou	ase overall?					
Excellent		Average O		Poor	Very	poor
21. What aspects of the tra	ining could be imp	roved? Pleas	se make :	recommer	ndations	
None						
NONE						









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

### PARTICIPANT EVALUATION

Location: SAINT LUCIA Date:16 DECEMBER 2019

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Training Programme and Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The workshop met my expectations.	0		0	0	0
2. I will be able to apply the knowledge learner	id, O		0	0	0
3. The material covered is useful.	0		0	0	0
<ol> <li>The material presented is beneficial to promoting the implementation of RWH.</li> </ol>	0		0	0	0
<ol> <li>The information outlined in the Introduction Rainwater Harvesting Component Design was clear and informative.</li> </ol>	to	0	0	0	0
<ol> <li>The information outlined in the Quality Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>	•	o	0	0	0
<ol> <li>The information outlined in the Quantity Approach to RWH climate &amp; water risk assessment was clear and informative.</li> </ol>		0	0	0	0
<ol> <li>The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.</li> </ol>	•	•	0	0	0
<ol><li>The excel calculator for sizing rainwater tar was clear and easy to use.</li></ol>	nks •	0	0	0	0
<ol> <li>The presentations and materials were pertinent and useful</li> </ol>	0		0	0	0

Quality of Presen	itations						
11. The quality of ins	truction was good.		•	0	0	0	0
12. The instructor res	sponded well to quest	tions.		0	0	0	0
13. Time manageme	nt was good.		•	0	0	0	0
General							
20. How do you rate	the course overall?						
Excellent	Good	Avera	ge		Poor	Very	poor
THE US BE THIC ISLAND	ié OF THE ORED FOR	KAM Specif	ec.	REGU	MARCO	OF TH	e
Participant prof	file			Ti East	lo.		
Participant prof	file			□ Fema	le		









### Climate and Water Quality Risk Assessment & Design for Improving Household Water Security

### PARTICIPANT EVALUATION

Location: SAINT LUCIA Date:16 DECEMBER 2019

Participant evaluations are a vital part of monitoring the training program. Without feedback from you, it is impossible to refine and improve the training. Please answer this anonymous and confidential questionnaire as carefully as possible.

Т	raining Programme and Content	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	. The workshop met my expectations.	0	p	0	0	0
2	I will be able to apply the knowledge learned.	9	0	0	0	0
3	. The material covered is useful.	ø	0	0	0	0
4	The material presented is beneficial to promoting the implementation of RWH.	ø	0	0	0	0
5	The information outlined in the Introduction to Rainwater Harvesting Component Design was clear and informative.	ø	0	0	0	٥
6	The information outlined in the Quality Approach to RWH climate & water risk assessment was clear and informative.	o	ø	0	0	0
7	The information outlined in the Quantity Approach to RWH climate & water risk assessment was clear and informative.	0	ø	0	o	0
H	The information outlined in the practical approach to tank sizing and drought risk reduction was clear and informative.	0	9	0	0	0
9	The excel calculator for sizing rainwater tanks was clear and easy to use.	0	9	0	0	0
1	The presentations and materials were pertinent and useful	0	ø	0	0	0

Quality of Presentations		0	6	0	0	0
11. The quality of instruction v	vas good.	9	P			~
12. The instructor responded	well to questions.	ø	0	0	0	0
13. Time management was go	ood.	ø	0	0	0	0
General						
20. How do you rate the court	se overall?					
Excellent 0	Good Ave	erage		Poor	Very	poor
21. What aspects of the train	ing could be improv	red? Pleas	se make	recomme	ndations	
G Commonwood	presentation d	on W dem			novel	an for Huse
bette Clark Companets e	cation of and byeth mate chan	dem e, -1	unsh	cthy	had d hos	these of the

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