



SWAP Marine Litter Training – Solomon Islands

Activity report – March 2023



SWAP MARINE LITTER TRAINING – SOLOMON ISLANDS ACTIVITY REPORT

MARCH 2023



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I. Introduction

Since 2018, Sustainable Coastlines has been delivering a long-term citizen science programme in New Zealand to collect open-access scientific data on marine litter and use it to turn insights into action. The Litter Intelligence Programme, New Zealand’s first national litter database, was designed in close collaboration with Statistics New Zealand (StatsNZ) and the Department of Conservation (Doc) to help build a better understanding of the litter problem - because ultimately, we cannot understand what we do not measure.

As part of the “Committing to Sustainable Waste Actions in the Pacific (SWAP)” project, that aims to improve sanitation, environmental, social, and economic conditions in Pacific Island countries and territories through proper waste management, Sustainable Coastlines and its Litter Intelligence Programme is delivering a Pilot Marine Litter Training in five Pacific Island countries: Fiji, Samoa, Solomon Islands, Tonga, and Vanuatu with the objective to strengthen communities and local authorities’ capacity around Marine Litter. In particular, to deliver training and workshops to monitor the evolution of Marine Litter pollution and produce awareness materials to inform and educate on the issue of Marine Litter.

Sustainable Coastlines is providing in person training for communities and associations involved in the implementation of the SWAP Marine Litter Pilot Projects, to enable them to conduct statistically sound beach litter surveys and audits during clean-up activities, and to enable them to record this data using the Litter Intelligence online application for Marine Litter data sharing. The training is being delivered through workshops that provide training on methodology and the use of the online data collection application for recording beach litter data. Additionally, Sustainable Coastlines is working on producing awareness and training materials to inform and educate associations and communities on the issue of Marine Litter involved in the SWAP Marine Litter Pilot Project in Fiji, Samoa, Solomon Islands, Tonga and Vanuatu.

This is the first in the field delivery report of the SWAP Marine Litter Training. Sustainable Coastlines delivered 3 in person training workshops and 2 litter surveys and audits during clean-up activities in the Solomon Islands. The report outlines the activities and community groups in Solomon Islands that took part in the training workshops and the beach litter surveys and data collected. This report includes the training material delivered, and photos of the field work.



II. Training Day 1 – LI Citizen science workshop - Baudoko Beach, Honiara, Solomon Islands

2.1. Agenda

MARINE LITTER TRAINING Tuesday 14 March <u>Location:</u> Baudoko Community /Baudoko Beach, West Honiara / Guadalcanal Province / Solomon Islands		
Time (Solomons Time)	Topic	Resource Person
9:30am – 10:00am	Registration of participants to the training	Mrs Julie Pillet WMPC, SWAP Project Coordinator Ms Wendy Beti Waste Management & Pollution Control/Environment Unit MECDM
10:00am – 10:10am	Welcome to the participants	Mr Anthony Talouli WMPC – SPREP, Director
10:10am – 10:20am	Launch of the Marine Litter Pilot Project	Ms Wendy Beti Waste Management & Pollution Control/Environment Unit MECDM Josh Borwick, Sustainable Coastlines
10:20am – 10:40am	Overview of the Marine Litter Problem	Mrs Julie Pillet WMPC, SWAP Project Coordinator
10:40am – 10:45am	Awareness Video on Marine Litter	Mrs Julie Pillet WMPC, SWAP Project Coordinator Josh Borthwick Sustainable Coastlines
10:45am – 11:15am	Introduction to the training	Sustainable Coastlines Ben Knight, Sustainable Coastlines
11:15am – 11:30am	Implementation of the litter audit and survey area	All participants under supervision of Sustainable Coastlines



2.2. Attendees

A total of 15 participants attended the Marine Litter Training delivered in Baudoko Beach, West Honiara on Tuesday 14 March 2023 and the launch of the Honiara Marine Litter Pilot Project developed under the SWAP Project. The registration form of attendees from the community is shown in appendix 1.

The workshop was delivered by Sustainable Coastlines (Ben Knight and Josh Borthwick). Attendee groups were Kavauare, Kakabona, and Lela Beach Community, Honiara City Council, Ministry of Health, the Solomon Islands Ministry of Environment Climate Change Disaster Management & Meteorology (MECDM) and the SWAP Steering Committee Members as detailed in appendix 1.



2.3. Activities

The marine litter training with the Baudoko community on how to conduct a marine litter survey and audit. The activities conducted during this day were:

- 1) Presentation of the Marine Litter Problem;
- 2) Introduction to the training. The PPT Presentation used for this introduction is attached to this report in Appendix 2;
- 3) Analysis of the beach selected for the Marine Litter Pilot Project;
- 4) Setting up of the litter audit and survey area;
- 5) Picking up of litter from the survey area;
- 6) Litter audit.

These activities are illustrated below:



Presentation on the Marine Litter Problem	Analysis of the beach selected for the Marine Litter Pilot Project
 A group of approximately ten people are seated in a room with a corrugated metal roof and wooden walls. They appear to be attending a presentation or meeting. The room has large windows and a concrete floor.	 A large, dense pile of marine litter is shown on a beach. The litter includes various types of plastic waste, such as bottles, caps, and fragments, along with sticks and other debris. The beach is composed of light-colored sand and small pebbles.
Setting up of the litter audit and survey area	
 A group of people is gathered on a beach, setting up a survey area. They are using white bags to collect litter and are standing near a line of debris. The background shows trees and a building.	 A group of people is standing on a beach, observing a survey area. The area is marked with a line and contains a large pile of litter. The background shows trees and the ocean.



Picking up of litter from the survey area



Litter audit



2.4 Results Baudoko Beach, West Honiara

Litter survey data can be accessed through the following link:

<https://litterintelligence.org/data/survey?id=2284>

Survey Area: 10m x 6m surveyed.

Rubbish Volume collected: 500 Litres.

Rubbish Weight collected: 87.52 Kilograms.

Litter density of the site: 74667 Items per 1,000m².

The screenshot displays the Litter Intelligence website interface. At the top, there is a purple navigation bar with the Litter Intelligence logo and menu items: Home, Data, Insights, Action, Education, About, and a LOG IN button. Below the navigation bar, a dark grey section contains the word "Data." in large white font, followed by a paragraph explaining that the dataset was collected by Citizen Scientists at an official 'Survey Area' and is freely accessible.

The main content area is titled "Litter Survey" and includes a "Beach." icon. It lists the following details:

- Survey Area:** Baudoko Beach - West Honiara
- Monitoring Group:** Solomon Islands Government Ministry of Environment, Climate change, Disaster Management and Meteorology
- Survey Date:** 14 March 2023
- Lead Citizen Scientist:** Wendi Beti

A satellite map shows the survey location at Baudoko Beach, with a red pin labeled "ERBART" and a note "Kouvara Night Club Temporarily closed".

An "Overview" panel on the right provides a summary of the survey data:

Metric	Value
Visual Assessment Grade	D
Citizen Scientists	30
Survey Hours	15.5
Audit Hours	60.0
Survey Area	10m x 6m
Surface	Mixed Substrate
Litter density (Items per 1,000m ²)	74667



III. Training Day 2 – Litter Intelligence Citizen science workshop - King Solomon Hotel, Honiara, Solomon Islands

3.1. Agenda

MARINE LITTER TRAINING Wednesday 15 March <u>Location:</u> King Solomon Hotel, Honiara / Guadalcanal Province / Solomon Islands		
Time (Solomons Time)	Topic	Resource Person
9:30am – 10:00am	Welcome and introductions	Sustainable Coastlines Ben Knight, Sustainable Coastlines
10:00am –11:00am	Theory session 1 - Lead Citizen Scientist theory session (slide based presentation)	Sustainable Coastlines Ben Knight, Sustainable Coastlines
11:00am - 12.30pm:	Practical training session 1 - litter survey set up and litter collection activity	Sustainable Coastlines Ben Knight Sustainable Coastlines
12.30pm - 1.30pm:	Lunch and refreshments	Sustainable Coastlines Ben Knight & Josh Borthwick - Sustainable Coastlines
1.30pm - 3.00pm:	Session on How to use the Litter Intelligence web-app	Sustainable Coastlines Ben Knight & Josh Borthwick - Sustainable Coastlines

3.2. Attendees

1 participant, Ezekiel Leghunau from MECDM attended the Marine Litter Training delivered in King Solomon Hotel, Honiara on Wednesday 15 March 2023. The registration form is shown in appendix 3. The workshop was delivered by Sustainable Coastlines (Ben Knight). Attendee group: Solomon Islands Ministry of Environment Climate Change Disaster Management & Meteorology (MECDM). Due to bad weather the Training could not include the Practical Litter survey, audit and data entry after the methodology session. However, because Ezekiel participated in the survey and audit on Baudoko Beach he has completed the official training. An additional practical session on how to enter data in the app was delivered by Ben Knight to reinforce the learnings from the methodology session.





3.3. Activities

The marine litter training at King Solomon Hotel, Honiara on how to conduct a marine litter survey and audit. The activities conducted during this day were:

- 1) Presentation of the Marine Litter Problem;
- 2) Introduction to the training. The PPT Presentation used for this introduction is attached to this report in Appendix 2;
- 3) Session on How to use the Litter Intelligence web-app



IV. Training Day 3 – Litter Intelligence Citizen science workshop - Tisi Beach, Gizo - Solomon Islands

4.1. Agenda

MARINE LITTER TRAINING Friday 17 March <u>Location:</u> Community Center and Survey at Tisi Beach, Gizo/ Solomon Islands		
Time (Solomons Time)	Topic	Resource Person
9:30am – 10:00am	Welcome and introductions to participants	Sustainable Coastlines Ben Knight & Josh Borthwick, Sustainable Coastlines
10:00am – 11:00am	Theory session 1 - Lead Citizen Scientist theory session (slide based presentation)	Sustainable Coastlines Ben Knight, Sustainable Coastlines
11am - 11.30pm:	Transport to Tisi Beach, Gizo	
11.30pm - 12.30pm:	Practical training session 1 - litter survey set up and litter collection activity	Sustainable Coastlines Ben Knight & Josh Borthwick, Sustainable Coastlines
12.30pm - 1.30pm:	Lunch and refreshments	SWAP Project
1.30pm - 3:00pm:	Practical training session 2 - Litter audit and data entry	Sustainable Coastlines Ben Knight & Josh Borthwick, Sustainable Coastlines

4.2. Attendees

16 participants attended the Marine Litter Training delivered in Tisi Beach on Friday 17 March 2023. The registration form of attendees from the community is shown in appendix 4.

The workshop was delivered by Sustainable Coastlines (Ben Knight and Josh Borthwick). Attendee groups were Plastic Wise Gizo, Positive Change for Marine Life, Surfing Association, Gizo Town Council, Cause Project, ESSI/ESF, the Solomon Islands Ministry of Environment Climate Change Disaster Management & Meteorology (MECDM) and the Secretariat for the Pacific Regional Environment Programme (SPREP) as detailed in appendix 4.





*Front row left to right: Josh Borthwick, Ben Knight (Sustainable Coastlines)
Middle Row left to right: Agii Bryan (Positive Change for Marine Life), Relinta Valoda (Plastic Wise Gizo), Josphine Hilly (plastic wise Gizo), Amalyn Kaqubule (Plastic Wise Gizo), Nancy Ngarakana (Plastic Wise Gizo/nutritionist), Marilyn Vana (Plastic Wise Gizo /environmental health), Renee Rario (Gizo town council!), Jeremy Bae (Western Surfing Association)
Back row left to right: Aubrey Vavu (Ecological Solution Solomon Island), Sumana Deni (Positive Change for Marine Life), Raywin Pitisopa (Cause Project), Calvin Vana (Health Promotion /Plastic Wise Gizo), Nagarita Bae (Western Surfing association).*

4.3. Activities

The marine litter training in Tisi Beach on how to conduct a marine litter audit. The activities conducted during this day were:

- 1) Introduction to the training. The PPT Presentation used for this introduction is attached to this report in Appendix 2;
- 2) Analysis of the beach selected for the Marine Litter Pilot Project;
- 3) Setting up of the litter audit and survey area;
- 4) Picking up of the litter from the survey area;
- 5) Litter audit.

These activities are illustrated below:



Presentation on the Marine Litter Problem



Setting up of the litter audit and survey area



Picking up of the litter from the survey area



Litter audit



4.4. Results Litter Survey in Gizo - Tisi Beach

Results litter survey: <https://litterintelligence.org/data/survey?id=2288>

Survey Area monitored: 100m x 6m

Rubbish Volume collected: 40 Litres

Rubbish Weight collected: 10.36 Kilograms

Litter density Tisi beach: 463 Items per 1,000m²

The screenshot displays the Litter Intelligence interface for a specific survey. The top navigation bar includes 'Home', 'Data', 'Insights', 'Action', 'Education', 'About', and a 'LOG IN' button. The main content area is titled 'Data.' and contains a brief description of the dataset collection process. Below this, the 'Litter Survey' section provides key details:

- Survey Area:** Tisi Beach - Gizo
- Monitoring Group:** Plastic Wise Gizo
- Survey Date:** 17 March 2023
- Lead Citizen Scientist:** Jully Kalamana

A satellite map shows the survey area with 'START' and 'END' markers. To the right, an 'Overview' panel lists the following metrics:

- Visual Assessment Grade: **B**
- Citizen Scientists: **17**
- Survey Hours: **5.7**
- Audit Hours: **13.3**
- Survey Area: **100m x 6m**
- Surface: **Mixed Substrate**
- Litter density: **463** Items per 1,000m²



V. De-briefing meeting

A de-briefing meeting was arranged online (video conference) on Friday 31 March 2023 with Mrs Julie Pillet from WMPC, SWAP Project Coordinator, Ms Wendy Beti from the Waste Management & Pollution Control/Environment Unit of the Ministry of Environment, Climate Change, Disaster Management and Meteorology (MECDM) in the Solomon Islands, and Mr Josh Borthwick and Mr. Ben Knight from Sustainable Coastlines.

This meeting was to discuss: Highlights & successes (What worked?) and improvement opportunities (What held us back/didn't work?). A photo of the MIRO board used in the debriefing is available in appendix 5.

The main highlights and successes are:

- In person training added value to the training, as it allowed connecting with local staff and community, value to learning, face to face quality time and interest from stakeholders to collaborate, and it allowed time to verify previous surveys;
- Planning allowed the days to run smoothly and also facilitated the delivery of the training and for participants to be aware of the steps and what to do;
- Great teamwork, Jully, Ezekiel, media and local government staff contributed positively to deliver all the work; and
- Engagement was high in Gizo where participants had prior knowledge and work in marine litter issues before the training.

The main improvement opportunities, and what held us back:

- Planning backup dates for bad weather;
- Community consultation before the workshops and activities;
- Flight delays meant trainers couldn't get to the site the day before to scout it. One of the sites was heavily polluted making the audit a longer time effort, thus, site scouting the day before was not possible. Heavily polluted sites can also be run with a wider area clean-up alongside the survey and a smaller survey area to reduce the time effort in the audit process;
- Plan for different audiences when not possible to deliver separate training sessions and briefing focal points;
- Having backup mobile devices when issues like a cracked screen make work difficult;
- Lack of introductions at the first survey meant we weren't quite sure who to target as potential continued lead citizen scientists, a future way forward is to have clarity on who will lead future surveys. Proposed to start with introductions and a shared meal/snack;
- Some planned activities did not go according to plan, i.e. last minute change of venues for the workshop made it difficult for the trainers;
- Ideally send a memo to focal points in different countries - budget for things like tables etc - prepare catering etc; and
- Paper record keeping made it difficult to retrieve emails addresses from participants could be tackled if online registrations are made available and capturing mobile numbers and use those for pre- event sign-ups and post event follow up.

Next steps:

- Create a SWAP Marine Litter Project Facebook page;
- Establish a community of practise for leads and trainers;
- Share quote for Litter Intelligence equipment for Honiara; and
- In the future, give priority to working with groups and individuals that were trained and participated in surveys and audits.



Appendices

- Appendix 1: Registration Form – Day 1 - Baudoko Beach, Honiara, Guadalcanal
- Appendix 2: PPT Presentations
- Appendix 3: Registration Form – Day 2 - King Solomon Hotel, Honiara, Guadalcanal
- Appendix 4: Registration Form – Day 3- Tisi Beach, Gizo
- Appendix 5: Debrief Miro Board



Appendix 1: Registration Form – Day 1 - Baudoko Beach, Honiara, Guadalcanal

Name	Organisation	Email address	Phone
Frederick Dotho	MECDM	fdotho@mecdm.gov.sb	7466434
Fiona Lai	Kouvare Kakabona		7690183
Jewin Maqa	Honiara City Council	vjewin@gmail.com	7306994
Roselyn Gaza	Lela Beach Community	rgaza323@gmail.com	7315372
Bobby Patterson	Ministry of Health	bpatterson@moh.gov.sb	8734041
Methoeta Ifuimae	Ministry of Health	mifuimae@moh.gov.sb	7792464
Angus Resfure	Kakabona Community		7744619
Christopher Biiva	Kakabona Community		7953904
Sapa Raro	Kakabona Community	raosapa21af@gmail.com	7146806
Gwen Jackflyn	Kakabona Community		7146806
Eddie Kennit	Kavauare		7146822
Naomi Kennit	Kavauare		7516925
Sarina Belande	Kavauare		7516925
Julie Pilet	SPREP	juliep@sprep.org	
Wendy Beti	MECDM	WBeti@mecdm.gov.sb	67726036



Appendix 2: PPT Presentations

1. [Lead Citizen Scientist Training Workshop Slides 2023 SWAP pilot.pptx](#)
2. [LI intro presentation for SWAP Pilot 2023.pptx](#)



Appendix 3: Registration Form – Day 2 - King Solomon Hotel, Honiara, Guadalcanal

Name	Organisation	Email address	Phone
Ezekiel Leghunau	MECDM	eleghunau@mecdm.gov.sb	7782425

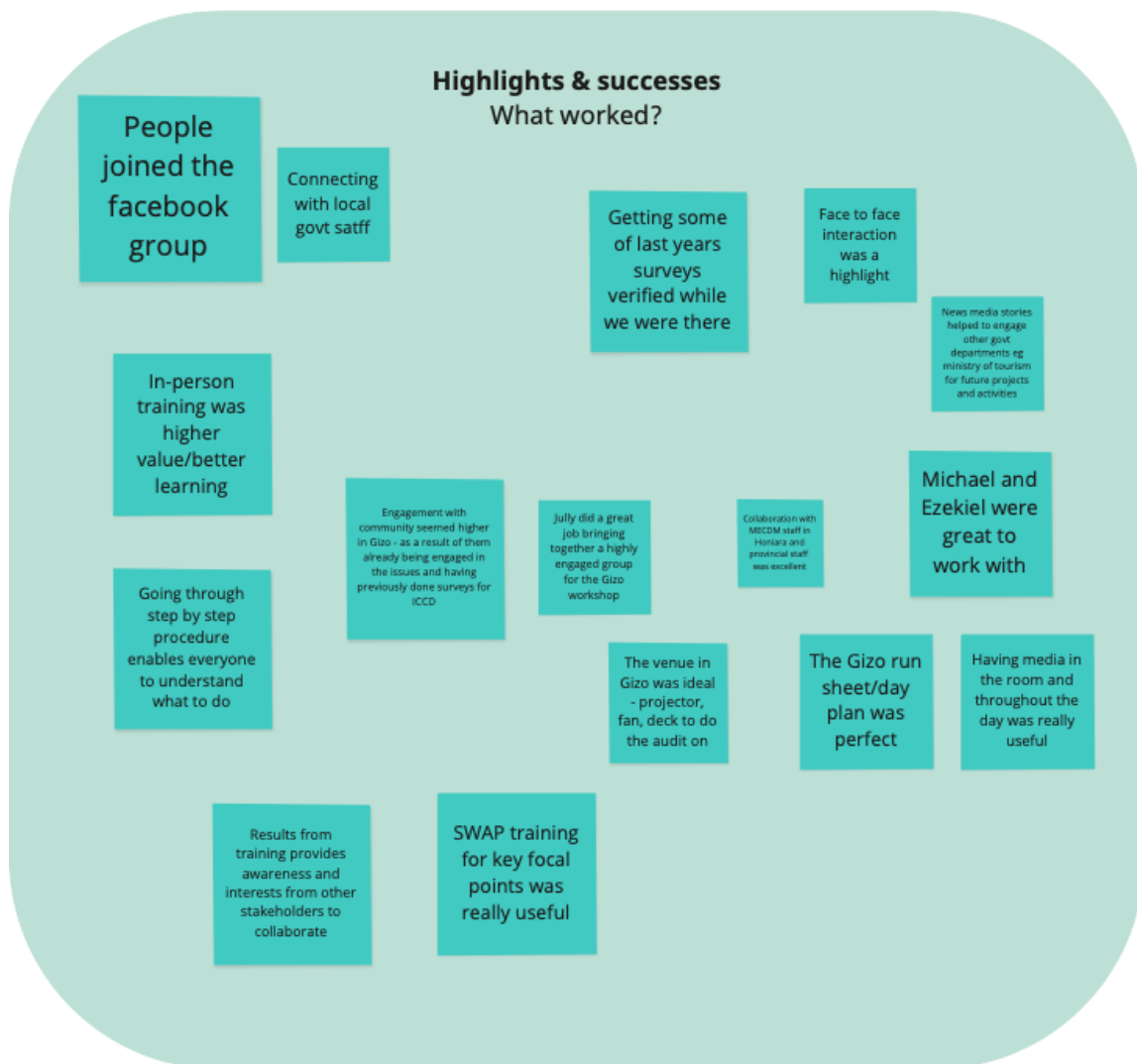


Appendix 4: Registration Form – Day 3- Tisi Beach, Gizo

Name	Organisation	Email	Phone
Mrs Amalyn Kaqubule	Plastic Wise Gizo	Nil	7744337
Mrs Josephine Hilly	Plastic Wise Gizo	Nil	7655936
Renita Valoda	Plastic Wise gizo	renitval@gmail.com	7432968
Nancy Ngarakana	Nutritionist/Plastic wise Gizo	nancyngarakana@gmail.com	7576917
Renee Rario	Gizo Town Council	reneerario@gmail.com	7202295
Rewyn Malasa Pitisopa	Cause Project	rmptsopa@gmail.com	7701862
Jeremy Baea	Surfing Association	Jeremybaea@gmail.com	7690026
Agii Brain	Positive Change for Marine Life	Nil	7474985
Filma Alenia	Positive change for Marine Life		7183469
Aubrey Vavu	ESSI/ESF	vavuaubreylauruzco@gmail.com	
Sumana Deni	Positive Change for Marine Life	s.deni@pcfml.org.au	7722042
Jully Kalamana	WPG Environment Officer/Plastic wise Gizo	ju.kalamana26@gmail.com	7791992
Calvin Vana	Health Promotion (Gizo Hospital)/Plastic wise Gizo		7512173
Ben Bilua	Media/Island Sun		7464413
Merilyn Vana	Environmental Health Inspector (Gizo Hospital) /Plastic wise Gizo	Merrilynroyvana29@gmail.com	7160845
Nagarita Baea	Surfing Association	Nil	



Appendix 5: Debrief Miro Board



Improvement Opportunities

What held us back/didn't work?

Rainy weather led to cancellation of training for Fishing village

Working on the ground for the waste audit made it harder at Baudoko

Volume of rubbish made the training harder but was also a great opportunity for participants to see a wide range of categories and get some practise

Proper community consultation before undertaking activities

Record keeping for Baudoko participants was paper based and hard to read the email addresses of the participants

Two different audiences provided some challenges including confusion for trainers regarding what information to present & emphasise

Flight delays meant trainers couldn't get to the site the day before to scout it

Lack of introductions at first survey meant we weren't quite sure who to target as potential continued lead cit scientists

Honiara day plan was disorganized/run as planned

Mobile device had a cracked screen and was hard to use at the beach

The change of survey sites and venues for both workshops chaging at the last minute made it more challenging for the trainers



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Mobile device had a cracked screen and was hard to use at the beach

The change of survey sites and venues for both workshops changing at the last minute made it more challenging for the trainers



Actions

What should we do next?

Set up a fb group for the SWAP countries?

Ben to send invoice for kit left in Honiara to Wendy in US\$

Ben to send quote to Wendy for Honiara kit in US\$

Establish a mini community of practise for leads and trainers?

Prioritise working with groups and individuals that have previously trained with us



Quick fixes

How could we do things differently?

Presentation of results back to communities

Memo for focal points in different countries - budget for things like tables etc - prepare catering etc

Wider area cleanups alongside the survey?

Funding availability prior to activity

Briefing with Focal points

Site scouting the day before where possible

Start with introductions and a shared meal/snack

Online/electronic registrations?

Check-list of materials for waste audit

Capture mobile numbers and use those for pre-event sign-ups and post event followup

