





International Coastal Cleanup Singapore

Background Information



Why the Cleanup is Important for Our Shores and Oceans

<u>Plastic bags</u> floating in the water resemble jellyfish. Turtles, whales and albatrosses have been found to consume plastics from the ocean.

<u>Plastic bottles</u> are often mistaken for cuttlefish given their tough but chewy texture. Again, it's whales, and maybe turtles too who make this often fatal mistake. Plastic bags are on the increase over the years and are a significant waste disposal issue.

<u>Plastic Bits</u>. Birds often confuse plastic bits for food too! The animals fill their bellies with plastic of some sort and have a false sense of having their hunger satiated. They die of malnutrition.

<u>Entanglement</u> is another problem. Rope from ships, fishing lines, broken nets and plastics tabs are the culprits, entangling turtles, snakes, birds, crabs, horseshoe crabs and fish.

<u>Habitat impact.</u> Just like you would not want to live in a home filled by inconsiderate litter, a natural environment means a safer and healthier home for plants and animals.

<u>Scenery</u>. Who enjoy swimming amongst plastic bags? Walking down a beach littered with trash robs us of the tranquillity that the sea and waves offer.

International Coastal Cleanup - Introduction and Brief History



The International Coastal Cleanup (ICC) is an annual affair in over 90 countries coordinated by the US-based Ocean Conservancy, a non-profit organisation. It aims to remove and collect data on the debris from the shorelines, waterways and beaches of the world's lakes, rivers and oceans. This information serves to educate the public on marine debris issues and to encourage positive changes by submission by feedback to government and international organisations that will reduce debris in waterways and enhance aquatic environments.

The International Coastal Cleanup Singapore (ICCS) is Singapore's largest and oldest environmental conservation programme. It was coordinated by the Nature Society (Singapore) at its inception in 1992, and by the National University of Singapore from 2000. In it's first decade, the ICCS saw an average annual participation of 1,500 volunteers who collected some 60,000 pieces of litter. This has grown to 3,500 volunteers removing 150,000 pieces of trash annually.

The areas covered by the ICCS grew from the beaches of East Coast Park, Pasir Ris Park and Changi Beach, to pioneering mangrove clean-ups in the late 90's starting at Mandai, Lim Chu Kang, Kranji and Chek Jawa, and year-round clean-ups, school talks and exhibitions.

Websites: - International Coastal Cleanup Singapore: http://coastalcleanup.nus.edu.sg/

- The Ocean Conservancy: http://www.oceanconservancy.org/













International Coastal Cleanup Singapore

Cleanup Day: Sample Programme

**Please adjust programme accordingly



07:30 am to 08:00 am	Meet at the assembly point (account for travel time to Site).
08:00 am to 08:30 am	All participants accounted for; depart for Cleanup Site.
08:45 am	Arrive at Cleanup Site. Break into data collection teams. Distribute
	cleanup materials. Allocate trash collection and weighing teams.
09:00 am	Conduct briefing on Data Collection and Safety.
09:45 am	Monitor weighing and trash collection teams.
10:15 am	Ensure participants drink enough water.
11:00 am	Everyone reports back to Trash Collection Point.
11:05 am	All teams to total up their data cards. Data cards to be consolidated
	into a single card. Weighing teams to tally the total amount of trash
	collected.
11:30 am	Debrief and/or Team Presentation (it is usually more meaningful for
	teams to quickly present what they found) e.g. Weirdest Item
	Found. Animals Found/Rescued. Most Common Item Found.
11:55 am	Submit the collated site data to the Zone Captain.
12:00 noon	All participants accounted for; depart Cleanup Site.

Cleanup Day: Example of an Onsite Briefing

Before You Start

- 1) Share with participants the significance of what they are doing.
- 2) Explain why they must work in teams and have each team member rotate their roles.
- Explain how the data card and data recording works.
- 4) Tell participants to ask for help when unsure about the category of trash items.
- 5) Conduct a briefing on personal safety. Inform everyone where the first-aid station is.
- 6) Go through the list of dos and don'ts.
- 7) Inform everyone where the Trash Collection Point is.
- 8) Ensure everyone is aware of your itinerary.

After You Finish

- 9) Get teams to total up the data card information and tell them to prepare for a short presentation of about 1 min per group.
- 10) If you have time and your participants are creative, tell them to think of imaginative ways to share their findings, e.g. as a Top-10 Countdown or a simple rap/rhyme.
- 11) Tell students to return all their data cards to your data I/C.











^{**}Please adjust accordingly







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Cleanup Day: Checklist for Organisers

A summarised checklist to help you organise a smooth cleanup



Administration and Preparation	
 □ Indemnity forms completed and signed by participants □ Transport arranged □ Programme drawn up □ First-aid team assigned □ Informed participants on reporting time □ Informed participants on attire & personal belongings □ Informed participants to bring along pen and clipboards □ Informed participants to bring along some used plastic shopping bags □ Informed participants to bring along their own reusable water bottles □ Informed participants to bring along their own snacks □ "Green" food and water arrangements done □ Group leaders (adults) assigned 	
Items Needed	
□ Site map □ First aid kit/s □ Heavy reinforced cotton gloves □ Used plastic shopping bags □ Trash bags □ Trowels and Penknives □ Weighing scale □ Pens and clipboard (participants can bring their own) □ Camera	
On Cleanup Day: Starting the Cleanup	
☐ Participants divided into teams ☐ Data recording and safety briefing done ☐ Collection point assigned ☐ Informed participants about programme and reporting times On Cleanup Day: After the Cleanup	
 Asked teams to weigh litter, collate total litter findings Asked teams to prepare & present a short presentation Gloves washed and dried and manpower all accounted for Submitted results to Data Manager 	







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Before the Cleanup Day: For Organisers



Before the Cleanup Day

- 1) When registration is open in April, register for a site and your Zone Captain will contact you. In July, attend the Organiser's Workshop, a 2.5 hour weekend evening session. Do ask for advice about how to organise a cleanup at this session.
- 2) Visit the Cleanup Site. Identify the Assembly Point, Risk Areas, and Trash Collection Points. Identify possible hazards and envisage potential difficulties that you may encounter on the clean-up day, and how to overcome them.
- 3) Conduct an assembly talk on (i) why we do the cleanup, and (ii) how we do the cleanup. Customisable powerpoint slides are available at the Organiser's page at http://coastalcleanup.nus.edu.sg/.
- 4) Prepare indemnity forms for all your participants and ensure they have signed their forms.
- 5) Parental approval is required for participants under 18 of age.
- 6) Conduct a briefing for your group leaders. A ratio of 1 leader to about 15 students is strongly recommended for participants below 16 years old.
- Arrange the time and pickup location with a bus transport company. You will probably spend 4 hours at your cleanup site.
- 8) Draw up a programme for the day. A sample programme is attached.
- 9) Have a proficient first-aid team with well-equipped first-aid kit.
- 10) Have fun with the cleanup!

List of equipment:

- 1. DATA CARDS (1:3 participants)
- 2. PENS and CLIPBOARDS
- COTTON GLOVES (<u>Heavy reinforced</u>)
- 4. PLASTIC SHOPPING BAGS (Used)
- 5. TRASH BAGS (Large, industrial strength)
- TROWELS and CUTTERS
- 7. WEIGHING SCALES
- 8. CAMERAS







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Before Cleanup Day: For Organisers

- 1. Data Cards- Have extra copies of the litter survey data cards. They can be downloaded from http://coastalcleanup.nus.edu.sg/
- 2. Clipboards and pens- Have pens and clipboards for recording data. Ask participants to reuse waste items, such as old used files, as clipboards.
- 3. Gloves- Heavy reinforced cotton gloves are needed for adequate protection, as there are many sharp objects on the beach. They should be washable so that they can be reused. Ordinary cotton and latex gloves offer little protection and must not be used.
- 4. Used Plastic Shopping Bags- Ask your participants to bring along used plastic shopping bags for reuse, as most of the cleanup items are small. Reusing is important as it cuts down on waste! Be green!
- 5. Large Trash Bags- Purchase large thick trash bags. Use the bags for medium to large sized items only. A typical cleanup requires about 20 bags for a group of 60 students.
- 6. Trowels and Scissors It is advisable to equip each team with one trowel and scissors. Trowels are used to pickup numerous small items like broken Styrofoam while scissors are used to cut nettings.
- 7. A weighing scale You are required to weigh the amount of trash you have collected. This data will be submitted to the Ocean Conservancy and will give us useful information about our environment, so be as accurate as possible.
- 8. Cameras- Cleanup is a fun and memorable experience. Have cameramen to capture the event. Do send the copies to the coordinators and have your site featured in the gallery!



Important: Avoid Disposable Items. Be Green.

Avoid using disposable items when providing food and drinks, e.g. plastic bottles, Styrofoam boxes. Think of creative and greener ways to feed and water your group, e.g. have participants bring their own water bottles and snacks in reusable containers.













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Cleanup Day: For Organisers



On Cleanup Day - Before Cleanup Begins

- 1) Account for all your participants. Know the leaders. You should have a name-list of all your leaders and participants.
- 2) Your participants should already be organized into data collection teams of at least 4 people before arrival at site. The Team Roles are:
 - a) 1 data-recorder records the type and number of trash collected.
 - b) 2 data collectors pick and count off litter types and numbers.
- 3) Rotate the roles in each team to sustain interest.
- 4) Conduct an onsite briefing for the participants before the cleanup starts. The briefing should include:
 - a) A recap of the objectives of cleanup (see "a brief history").
 - b) The program for the day.
 - c) The correct method of data recording (see the next section on page 4)
 - d) Safety during cleanup (see guidelines)
 - e) Operation Guidelines (see guidelines)
 - Trash Collection Point.
- 5) Notify all teams to gather and bring their trash to the designated Trash Collection Point. Have a trash collection team to transfer completed trash bags from the data collection team to the collection point.
- 6) Have the weighing team record the weight of trash at the Trash Collection Point.







http://coastalcleanup.nus.edu.sg/







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Cleanup Day: For Organisers



During Cleanup – Data Recording and Cleanup Guidelines

Inform your participants:

- 1) Count in groups of five. E.g. ++++
- 2) Maximise writing space by making small slashes on the data card, as space is limited. You can also provide them with more cards but ensure proper numbering, e.g. "1 of 3."
- 3) Ensure the participants add up and write on the data card the number of each item found at the end of the cleanup. Remember only numbers can be counted and put into the computer.
- 4) Tell the participants to name all stranded animals and the items trapping them in the "Entangled Animals" section, if any are found.
- 5) During the cleanup, have your leaders to go round motivating each team with questions on things they have found and also stimulate discussion by requesting each team to explain the sources of the trash on the shores.
- 6) Leave natural items on the beach like driftwood, mangrove seeds and seaweed.
- 7) Avoid stepping on beach grass and plants. They bind the sand and prevent erosion.
- 8) Finally, get the data I/C in each team to total up the number of items collected in their card. Ask the data I/Cs to gather into groups of three and consolidate their data into one new card. Continue until a single card has consolidated the data for the entire Site.
- 9) Return the consolidated data card for your school/organisation to your Zone Captain or send it to the ICCS Data Manager at: iccsdata@coastalcleanupsingapore.org.
- 10) Your data will be uploaded to the International Coastal Cleanup Singapore webpage within hours!

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Cleanup Day: For Organisers



After Cleanup

- 1) Have everyone wash their gloves in freshwater and rinse them out. Dry them completely in the hot sun. Have a team to turn over the gloves to sun both sides. When cool, pack the gloves into double layer plastic bags, seal them in with a dehumidifier and label the package with the number of pairs of gloves and the event name. This way, you can use them for
- 2) Conduct a debrief and include a discussion of the consolidated data for your site.
- 3) Ensure all your participants are physically present; do not rely on hearsay. You do not want to leave people behind!
- 4) Send the completed data on the Excel spreadsheet provided to the Data Manager at iccsdata@coastalcleanupsingapore.org. Do this on the same day, as the ICCS team meets to verify your data and compile the national total for Singapore. After verification, Singapore's data is submitted to the international coordinator at The Ocean Conservancy, USA.
- 5) If you have taken digital photos, send them to us by sharing a Dropbox or Google Drive folder or by using http://wetransfer.com. We will upload the photos to the ICCS Flickr albums web page the same day as a testament to the good work you have done for years thereafter.











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After Cleanup Day: For Organisers



After the Cleanup Day- Back in school/organization

- 1) Review the session with the participants, view the photos and data on the web page and look out for the final results.
- 2) You can get students to put up a notice board with photos and comments from the exercise.
- 3) Analyse the types of trash and ask simple questions, e.g. on where this pollution comes from.
- 4) Share the results with your school/organisation and ask students to prepare a presentation based on the experience, their results, and the national results.
- 5) Write to the ICCS Coordinator about any materials that you may have produced or programmes that you have started as a result of this exercise.
- 6) The ICCS Coordinator will keep you updated of progress on further action with the results of the cleanup.











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Before Cleanup Day: For Participants



Be Green

1) Leave natural items alone on the beach.

These include driftwood, shells and coral, dead fish and crabs, mangrove seeds and seaweed.

2) Don't pluck vegetation and avoid stepping on beach grass/ plants.

These plants bind the sand and prevent erosion, and also provide wildlife with food and homes.

3) Recycle used plastic bags to hold trash.

Old bags can be used, instead of brand new trash bags.

4) Don't litter.

You are there to help remove litter, not to add more litter.

5) Save a bottle.

Bring along your own refillable water bottle.

For Your Safety

1) Keep away from any oil drums found.

These may contain dangerous liquids or poisonous vapours. Just report the total number and any labels seen to the coordinator. We will alert NEA about disposal.

2) Broken glass, fishing hooks, syringes and other sharp objects.

They are common on beaches. Some fishes like the stingray have a sharp, poisonous spine.

- 3) Always use your gloves to pick up things.
- 4) Do not open any bottles you find; they may contain poison.
- 5) Take care of your back!

Have a friend to help you lift heavy things together. If it is too heavy, let it be!

- 6) Avoid bushy areas, as there may be hornet nests.
- 7) When there is lightning and thunder, stop work immediately and seek shelter.
- 8) Drink enough water to prevent heat stroke.













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Before Cleanup Day: For Participants



What to bring? What to wear?

- 1) Protect your feet! You must wear hard-soled, covered shoes absolutely no slippers or sandals!
- 2) Protect yourself from the heat wear a cap and put on some sun-block lotion (>SPF 15); do this early, before it gets hot!
- 3) Be prepared for rain pack a poncho, raincoat or umbrella.
- 4) Be hydrated! Bring at least one litre of water; if your site has no facilities, bring two litres!
- 5) Protect yourself from insect bites apply insect repellent in case of mosquitoes or sandflies before entering the site.
- 6) Wear pants to protect your legs against bites and scratches.
- 7) Being a pen to record data.
- 8) Collect a Data Card and a pair of gloves from your Organiser.
- 9) Bring a camera to record an eventful day!

After the cleanup, spread the word. Tell friends, colleagues and family members about what you did and what you have learned.

> The International Coastal Cleanup Singapore has been battling marine trash for 25 years.

Each year during ICCS, volunteers remove more than 150,000 items from our beaches and mangroves.

In five years of cleanups at Kranji Mangroves, more than 20 tonnes of marine trash was removed by volunteers, providing relief to the mangrove ecosystem there.

THANK YOU for your desire to keep the coastlines and oceans safe for marine wildlife and all of us!







