



### EDUCATIONAL COURSE ON THE OCEANS AND MARINE PLASTICS POLLUTION

#### A PRODUCT DEVELOPED IN THE FRAMEWORK OF:

On behalf of:



Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

of the Federal Republic of Germany













This resource was developed from Parley for the Oceans' Oceans 101 Online Workshop. All content was translated into Spanish as part of the PROMAR project.

Parley for the Oceans (2022). Oceans 101. Retrieved from: https://edu.parley.tv/course/o101/

# PROLOG

## **ABOUT THE PROMAR PROJECT**

The PROMAR - Prevention of Marine Litter in the Caribbean Sea project aims to reduce the flow of plastic waste (mainly plastic packaging and single-use plastics) reaching the Caribbean Sea by promoting Circular Economy solutions in the Dominican Republic, Costa Rica and Colombia. The project is funded by the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) and led by the German organisation adelphi.

The project created the PROMAR BlueBox, a collection of various tools, guidelines, tutorials and materials to help you implement circular economy solutions to reduce marine litter in your municipality. This Educational Workshop on Oceans and Marine Plastic Pollution is part of the PROMAR BlueBox.

The aim of the toolkit is to explain the importance of the oceans, outline the different threats they face, define possible solutions and inspire action for the protection and conservation of the oceans. This resource is an adaptation, made by Parley Dominican Republic in the framework of the PROMAR project, of Parley for the Oceans' online course "Oceans 101" available on the Edu.Parley.tv platform.

The workshop is aimed at students, educational institutions, environmental groups, NGOs, community organisations, private companies and the general public who want to be trained in the basic concepts related to the functioning of the oceans and marine plastic pollution. The publication of the tools is expected to motivate their use in coastal communities and thereby contribute to the reduction of land-based waste streams that reach marine environments.

Eddy Frank Parley for the Oceans Prof. Dr. Florian Schindler Consultant adelphi

# INTRODUCTION

The BlueBox is designed to provide a detailed overview of effective tools to combat marine pollution. In this workshop, we focus on the importance of the oceans, the risks they face and the different actions that can be taken to protect them.

The oceans are our life support system, but they face several threats including overfishing, plastic pollution and the climate crisis. Education is a key tool in maintaining the health of the oceans, building communities that value this great ecosystem and work together to protect it. The Oceans and Marine Plastic Pollution Education Workshop aims at educating about the oceans through the words, knowledge and experiences of legendary leaders in marine protection and conservation.

This workshop is divided into six units covering the importance of the oceans to life on the planet and the threats they face, the history of plastic and the harm of marine plastic pollution and how plastic works as a material, to the final units which include tips and methodologies for putting what you learn into practice through the dissemination of learning and multiplication of content in talks, awareness days and beach clean-ups. Each unit includes additional resources in the form of videos, podcasts, graphics and a quiz at the end of each unit to assess learning as the workshop progresses.

With this workshop, we hope to provide valuable and practical information about the oceans, the threats they face and solutions to these threats, thus encouraging the fight against marine pollution in the Caribbean region. Let's start the journey towards a cleaner and more sustainable marine future!

## UNIT 1: THE MOST IMPORTANT THING IN THE WORLD



Parley Ocean School Episode 1: Sylvia Earle -The Most Important Thing In The World

#### WATER, FOOD AND OXYGEN: THEY COME FROM THE OCEANS

The oceans are fundamental to our life on earth. They provide us with food to eat, water to drink and the oxygen we need to breathe. Let's start with water.

The oceans contain 97% of the planet's water and drive the Earth's water cycle: the perpetual exchange of water between sea, air and land begins with the oceans.

Water from the oceans and freshwater bodies evaporates and condenses in the atmosphere, forming clouds. The evaporated water returns to the Earth's surface in the form of rain and snow.



Photo taken from Oceans 101 - Parle for the Oceans; by Marek Okon

No matter where in the world we live, the oceans control our water supply and our climate.



Graphic from Oceans 101 - Parley for the Oceans

The oceans are also home to marine life, which together generate more than half of the world's oxygen. Marine organisms such as phytoplankton use photosynthesis to convert sunlight, water and carbon dioxide into energy. The process creates oxygen as a by-product. A marine bacterium called Prochlorococcus generates about 20% of all the oxygen in the atmosphere.

**The conversion of carbon dioxide is also important.** Thanks to the algae, plants, animals and bacteria that live in the oceans, the blue parts of our planet are a huge sponge for carbon pollution and heat. The sea absorbs almost a third of excess carbon dioxide and more than 90% of excess heat, slowing the pace of climate change.



Finally, there is food. The oceans provide fresh water for crops and livestock on land. More than 3 billion depend people on the oceans as their main source of protein, and more than 200 million rely on fisheries for work. Many jobs, from tourism to shipping to commerce, depend on the ocean.

Photo taken from Oceans 101 - Parley for the Oceans by Shaahina Ali

In this course, you make progress by completing chapters, watching videos and answering quizzes correctly. We invite you to take the quizzes. You can find the correct answers in Annex A of this document.



# **RECOMMENDATIONS**

We invite you to learn a little more about the wonders of our oceans. Below, we recommend four incredible videos that encourage you to get to know the wonderful species of our big blue ocean...



Ocean Wonders: Octopi



Ocean Wonders: Jellyfish



Ocean Wonders: Sea Turtles



Ocean Wonders: Immortal Jellyfish

# UNIT 2: IF THE OCEANS DIE, WE DIE...



Parley Ocean School Episode 2: Paul Watson -If the oceans die, we die



Only about 7% of our oceans are protected, yet we are at a time when they are under constant threat. Pollution, overfishing, development and destruction of the natural environment are transforming the world's oceans, making these critical ecosystems less and less hospitable to many marine species. Ultimately, this affects us too.

The oceans are huge and resilient, but not too big to fail. Let's look at the most important problems facing the oceans and what we can do to stop them.



Photo by Marek Okon, taken from Oceans 101 - Parley for the Oceans



As elsewhere on the planet, climate change is warming the oceans. Sea surface temperatures are rising steadily and the rate of warming has more than doubled since 1993.

This trend is already forcing marine mammals, fish, shellfish and crustaceans to seek cooler waters, as their natural homes are no longer habitable. Some have disappeared altogether.

Melting sea ice is killing land animals such as polar bears and penguins that depend on it for hunting. But this is only the beginning. The effect of climate change on the oceans extends far beyond temperature.



Graphic from Oceans 101 - Parley for the Oceans

The oceans take on an enormous burden by removing excess carbon dioxide  $(CO_2)$  from the atmosphere, and this is not without consequences. In short, when seawater absorbs excess carbon dioxide, it triggers a chemical reaction that produces an excess of hydrogen ions, a charged molecule. This makes the oceans more acidic.

The world's oceans constantly absorb about 30% of atmospheric CO<sub>2</sub>. That means that as the amount of CO<sub>2</sub> in the air increases, so does the amount stored in the seas. Since the industrial revolution began about 200 years ago, the oceans have become 30% more acidic.

Climate change poses a serious threat to the health of the world's oceans

World Bank (2022)

#### UNIT 2: IF THE OCEANS DIE, WE DIE...

This acidic environment is especially harmful to marine life that depends on shells, such as oysters and corals. With an excess of hydrogen ions in the water, the oceans have fewer carbonate ions, molecules that animals need to build and maintain their shells. If the oceans become too acidic, the water can dissolve the protective layers.

Warming seas also cause oxygen loss, another threat that causes species to move in search of oxygenated waters. On the other hand, it is indirectly causing ocean currents to slow down, which can drastically change the climate on all continents of the Earth.



Bleaching, Great Barrier Reef - via Ocean Image Bank

Finally, melting ice and warm, expanding sea waters are fuelling sea level rise, destroying coastal habitats, including human settlements.

But protecting critical marine species that act as additional blue carbon sinks can help the oceans, and our planet's climate, avoiding the worst effects of climate change. It all starts at the bottom of the food chain.

Phytoplankton are the foundation of all marine ecosystems; they are also the ocean's most powerful carbon stores. The tiny plants capture as much  $CO_2$  as four Amazon rainforests. Phytoplankton need  $CO_2$  to photosynthesise, so they capture excess  $CO_2$  from the ocean surface, where it is extracted from the Earth's atmosphere and trapped where it cannot warm the planet.

Moving up the chain, whales take centre stage. Not only is whale excrement vital for plankton production, but the animals themselves store an enormous amount of  $CO_2$ , partly due to their position at the top of the marine food chain. A single great whale, which includes grey, humpback, right, blue, sperm, bowhead, fin, sei, minke, pygmy right and Bryde's whales, captures around 33 tonnes of  $CO_2$  during its lifetime.

Mangroves and kelp forests also absorb massive amounts of  $CO_2$  and depend on healthy oceans to keep the greenhouse gas locked underground.





Photo by Elainne Dipp, taken from Oceans 101 - Parley for the Oceans

Climate change is causing fish to leave their natural habitat or become extinct, disrupting commercial fisheries around the world. However, the fishing industry itself is often its own worst enemy, plundering fish stocks without giving them a chance to replenish.

One-third (1/3) of all fish stocks were fished at biologically unsustainable levels in 2017. Sought-after species such as bluefin tuna were caught to the point of being endangered.

Up to 20% of fish sold are caught illegally. Unsustainable fishing methods using wide, untargeted nets incidentally catch other species such as sea turtles and the critically endangered vaquita porpoise.

When this debris is left behind, it becomes the largest source of plastic pollution in the oceans. Marine life is trapped in some of the estimated 640,000 metric tons of fishing nets left in the ocean each year, so the damage from the unsustainable fishing industry leaves a legacy long after the boats are gone.

"ACCORDING TO THE FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO), ILLEGAL, UNREPORTED AND UNREGULATED FISHING IS RESPONSIBLE FOR THE LOSS OF 11 TO 26 MILLION TONS OF FISH ANNUALLY."



The shipping industry is one of the most obvious ways humans use the oceans for consumerism, and its pathways are expanding.

Arctic routes that were once closed are now becoming passable as sea ice diminishes. Shipping (ships and barges transporting goods across the oceans) is responsible for the movement of 80% of goods sold internationally. This has a major impact on marine life. Ships stir up sediment, clouding the once clear waters that animals such as corals need to survive. Sediment levels in the water can be 30 times higher in shipping lanes than they normally would be.



Photo by Elainne Dipp, taken from Oceans 101 - Parley for the Oceans

"The hearing of whales and other marine species needs unpolluted waters in order to orient themselves and communicate, using sound to find food, friends, mates and avoid predators." Offshore energy production poses additional threats to marine life. Offshore oil platforms are risky and when they fail, the consequences are disastrous. Thousands of oil spills occur in U.S. waters alone each year. But even clean energy is not perfect.

As climate change and expanding human populations make freshwater even scarcer, engineers are turning to desalination, a process that removes salt from seawater. The byproduct is a brackish solution that is returned to the oceans.

It may seem harmless, but the salinity of our oceans is specific, and it is not well understood what the consequences of making some parts of the sea saltier than normal would be.

Parley, Oceans 101 (2022)



Carbon dioxide and noise pollution are just two of the many pollutants that are present in our oceans.

Sewage, agricultural wastes and fertilizers, and runoff from our yards, streets and roads flood the oceans with chemicals and excess nutrients. Two of the most harmful are nitrogen and phosphorus, which are found in fertilizers and create dead zones, areas of the oceans deprived of oxygen where marine life can no longer thrive.

Then there is our garbage.

So-called "garbage patches" now churn in the oceans' major gyres: vast galaxies of plastic fragments, lost fishing gear and other remnants of our globalized civilization. The best known is the Great Pacific Garbage Patch, which lies between California and Hawaii. A swirling but diffuse "soup" of plastic debris and microplastics, it stretches across 620,000 square miles of ocean, covering an area the size of Texas.



#### "80% OF THE POLLUTANTS THAT REACH OUR OCEANS COME FROM THE LAND!"

World Bank (2020). Marine pollution in the Caribbean: "not a minute to lose".

## UNIT 3: THE NEVER-ENDING STORY OF PLASTIC



Parley Ocean School Episode 3: Emily Penn -The never ending story of plastics



Since plastic took off in the 1950s, humans have generated approximately 8.3 billion metric tons. Although some plastic is recyclable, only 9% of what is created is actually recycled. Most of the rest is landfilled or released into the environment. Each year, another 8 million metric tons of plastic ends up in the oceans.

#### THERE'S A REASON WHY PLASTIC IS SO COMMON...



Parley beach cleanup in Durban, South Africa. By Parley for the Oceans



Graphic taken from Oceans 101 - Parley for the Oceans

In essence, plastic is a chain of molecular building blocks called polymers, which can be molded into everything from food packaging to gym equipment. It's also cheap and durable-so durable that it never goes away. It breaks into smaller and smaller pieces that live in our water, soil and air forever.

Despite its incredibly long life cycle, more than a third of plastic is designed to be used once, usually for a few minutes, and then discarded. So it's not surprising that the most common plastics found during coastal cleanups are bags, straws, utensils, bottle caps, and to-go cup lids.



Most of the plastic that ends up in the oceans does not get there directly. It usually takes a journey.

A 2017 study estimated that more than a quarter of plastic waste enters the oceans via rivers. The study assessed 100,000 rivers worldwide and found that 32,000 emit plastic pollution into the seas.

Other times, plastics blow in on the wind from overflowing landfills, dumpsters or makeshift dumps. They can also end up in storm drains that flow into the oceans.



Graphic from Oceans 101 -Parley for the Oceans



Early research has shown that chemicals in microplastics interfere with the ability of phytoplankton to extract  $CO_2$  from the surface of the oceans.

At the same time, larger marine animals are increasingly dying from accidentally eating plastic. An estimated 100,000 marine mammals die from plastic pollution each year, and plastic kills up to 1 million seabirds. By 2050, nearly all seabirds will have ingested plastic that can get stuck in their digestive tract, making it difficult for them to digest food, eventually leading to death.

Other animals, such as turtles, may mistake plastic bags floating in the oceans for jellyfish. Disposable bags obstruct the digestive tract and suffocate the animals that eat them.



RECOMMEND ATION

We recommend watching Albatross, a film by Chris Jordan that tells a powerful moving love story about seabirds on Midway Island in the Pacific whose bodies are full of plastic. Toxins in plastics also cause harm. At least 4,000 known chemicals are used to make plastic, including carcinogens and hormone disruptors. The more plastic the oceans ingest, the more people will ingest it too, through the seafood and sea salt we eat.

Plastic pollution in the oceans is not only an environmental or health problem, it is also costly. Plastic causes an estimated \$1.3 billion in damage to the tourism, fishing and shipping industries in the Asia-Pacific region alone.



Oceans 101 - Parley for the Oceans

In this course, you advance by completing chapters, watching videos and answering quizzes correctly. We invite you to take the quizzes. You can find the correct answers in Annex A of this document.



## UNIT 4: KNOW YOUR PLASTICS



Parley Ocean School Episode 4: Dave Hakkens -Know your plastics



If we stay on the current trajectory, the amount of plastic waste produced will triple in the next two decades... But that doesn't have to happen.

By understanding what different plastics are made of, which ones can be recycled, and the legacy that plastic is leaving on our planet, we can better shape the future into a planet without new plastic.

It's easy to think that all plastics are the same, but there are many different types that have their own unique characteristics, and not...



Oceans 101 - Parley for the Oceans

...all can be recycled. Despite their differences, almost all plastics are cheap, easy to produce and very strong. In addition, they never biodegrade and 99% of traditional plastics are made from ethane, a material that comes from fossil fuels.

Scientists are working to develop better alternatives, but for now, understanding what types of plastic your products are made of can help us make better decisions about what to buy and how to dispose of plastics when they cross our path.



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As Dave mentioned in the video, thermoset plastics can only be molded once. This makes them difficult to recycle because this type of plastic cannot be re-melted and reshaped into something new. Products labeled Bulk Molding Compound (BMC), Phenolic, Epoxy and Diallyl Phthalate (DAP) are part of this family.

Unlike plastic bottles and take-out containers, thermoset plastic products typically do not cross your path on a daily basis. Laptop chargers, car parts and glue-like glossy coating are commonly made from thermoset plastic. None of them can be turned into something new once you're done with them.

On the other hand, thermoplastics can and should be recycled. These plastics can be remelted and remolded into new products. Thermoplastics cross our path much more frequently; things like plastic bottles, plastic film packaging and take-out cup lids are often made of thermoplastics. However, just because thermoplastics can be recycled, doesn't mean they are being recycled.

Only about 9% of the plastic ever created has been recycled. Poor education on how to recycle properly is a key obstacle we must remove to create a circular plastic economy, until we can replace plastic entirely. It will take collaboration between governments, businesses and us, the consumers, to create recycling systems that really work. In addition, recycling plastic significantly reduces  $CO_2$  emissions, as it demands considerably less energy compared to making new plastic.

We also need to rethink how plastic products are manufactured. In the previous chapter, Emily Penn showed us how toothbrushes are actually a mixture of three or more different types of plastics. Even if most of a toothbrush is thermoplastic and therefore recyclable, the presence of any non-recyclable plastic makes it not fully recyclable. Plastic containers that hold food, such as peanut butter and yogurt, cannot be recycled unless they are cleaned first, although plastic containers contaminated with food waste are consistently thrown away for recycling.

#### SO WHAT CAN WE DO?

First, we need to buy and consume less plastic. We can clean up what we have already done and prevent existing plastics from polluting our oceans. We can also work with our local governments to create new recycling programs that invest in education and accessibility. On the other hand we must reimagine how we think about plastics in the first place. Dave is doing the latter through the Precious Plastics Academy. He explains how we can create optimal recycling systems that turn plastic waste into new and precious objects that can be used over and over again.



Foto from Precious Plastics



#### RECOMMENDATION

Precious Plastic is an open source project that provides tools and guidance for creating small-scale local recycling stores for processing and manufacturing new products.

## UNIT 5: A GREAT PLAN FOR A BETTER FUTURE



Parley Ocean School Episode 5: Cyrill Gutsch -The Grand Plan for a Better Future



Our goal is to inspire meaningful change #fortheoceans through education, innovation and collaboration. Parley has created a platform where creators, thinkers and leaders come together to raise awareness about the beauty and fragility of our oceans. We also collaborate on projects to change the way we consume.

No one has all the answers, but we all have something to contribute. That's why we need to work together and share what we know. Only from a discussion, a conversation, can everything start to change.

In the next chapter, we'll learn more about Parley's AIR Strategy, our innovative approach to the plastic pollution crisis. Let's take the Parley AIR Pledge, join the movement and make a difference #fortheoceans.





Oceans 101 - Parley for the Oceans

Every second breath we take comes from the sea. The oceans give us life. But in return, we give them plastic. At Parley for the Oceans, we believe that plastic is a flawed design. Once produced, it never dies, and a large amount enters the oceans daily. Lack of imagination got us into this mess. Creativity and collaboration can guide us.

To address the growing threat of marine plastic pollution, Parley devised a strategy that can be scaled across private households, businesses, governments, and the creative industries that shape the reality we inhabit. Realized in three key pillars of action, Parley AIR is an invitation to take your role in the solutions movement.

These are the three pillars of Parley's AIR Strategy to address our global plastic pollution crisis:



#### RECOMMENDATION

Parley AIR is the strategy to end the threat of marine plastic pollution and help drive solutions to the climate crisis. Everyone is invited to participate.

#### **AIR STRATEGY: A (AVOID)**



Oceans 101 - Parley for the Oceans

While plastic may tempt us with its varieties of color and elegance, we rely on it too much.

Do we really need food individually wrapped in plastic? Is the convenience of disposable cutlery really worth the harm it causes to seabirds? It is best to avoid plastic and use alternative materials whenever possible.

However, when avoidance is not possible, using recycled material is the next best option. This helps reduce virgin plastic production and encourages the industry to be responsible when considering material choices.

#### **AIR STRATEGY: I (INTERCEPT)**

Parley's Global Cleanup Network aims to save as many animals as possible by removing plastic from shorelines and offshore ghost nets. In remote areas, we intercept plastic before it ends up in landfills, is burned, buried or dumped in rivers or oceans.

Recycling is not the solution, but keeping plastic in use reduces the need for new, virgin plastic. As consumers, we should aim to recycle plastics to ensure that plastic items that have reached the end of their useful life have another chance to be useful.



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#### **AIR STRATEGY: R (REDESIGN)**



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The redesign pillar is based on the belief that plastic is a failed design that can only be solved by reinventing the material itself.

Parley, with its global network of experts, is operating an extensive research and development program to invent alternatives and set new industry standards.

However, we can all redesign the way we think about plastic. It is single-use plastic that presents the biggest problem. Avoid single-use plastic even when it is most convenient. When a plastic item has reached the end of its useful life, recycle it into something new.

In close collaboration with leading brands, we can work to redesign the plastic economy. Take the Parley AIR Pledge, join the movement and make a difference #fortheocean.



We invite you to learn and explore a little more about the major problems facing our oceans and marine plastic pollution with the following resources...



"Spaceship Earth": the official Parley Intro, read by Paul Watson



## UNIT 6: EDUCATING ABOUT THE OCEANS



#### BY CONDUCTING A DOOR-TO-DOOR AWARENESS DAY



Parley Dominican Republic

**First of all, what is an awareness day?** It is nothing more than a proposal to raise awareness in our community in a simple and educational way towards innovation and collaborative work, with the objective of disseminating information on a particular topic. On this occasion, if the objective is to disseminate the message in the community, we recommend a door-to-door awareness day, where households in a previously defined area are visited and the message is communicated to them according to their reality and context. Accordingly, it should be taken into account that door-to-door campaigns depend a lot on the local context, and the ideal is to carry out a direct, open and participatory process taking into account the following axes:

CONNECT	We start the journey based on our previous knowledge and experiences, always bearing in mind the way we approach and speak to the community. It is important to link the discourse with the reality of the community.
EXPLORE	We explore, through a previous information survey, the problems and socio-educational levels of the community in order to have an efficient approach.
PRACTICE	It is important to analyze the current reality and establish connections between the discourse offered and the reality faced by the community.



#### BY CONDUCTING A DOOR-TO-DOOR AWARENESS DAY

#### CHALLENGE

From what we learned, we became aware of the main challenges that remain and challenge the community to undertake these new actions that we show them.

#### CONSOLIDATE

It is necessary to reflect together on what has been learned. Likewise, it helps to provide visual and reading material that allows the community to continue educating itself about the contents addressed.

## **BEFORE YOUR DAY...**

Before starting your day, review the following recommendations and prepare in advance. The success of this type of intervention lies in the effective planning...





#### CONDUCTING EDUCATIONAL TALKS IN YOUR SCHOOL OR COMMUNITY



Parley República Dominicana

Talks are a pedagogical strategy that enables the knowledge and understanding of a local (or global) environmental problem and contributes to the search for solutions in accordance with the realities experienced in the locality. Talks are usually organized in three moments: introduction, crux and denouement; and organizing them in this way helps the audience to be guided by a logical link to the content.

Before delivering a talk in a school or community, it is crucial to consider various important aspects that directly impact the engagement and interaction with the participants.

KNOW YOUR AUDIENCE	Before the talk, do some research on who your listeners are and what their level of knowledge on the topic is. This way, you can adjust the language and examples you use so that they are appropriate and understandable to them.
ORGANIZE YOUR CONTENT	It is important that you have a clear and organized outline of what you want to talk about so that the information flows logically and is easy to follow. Use simple language, and if you need to use technical terms or jargon, be sure to explain them clearly.
USES VISUAL AIDS	Visual aids, such as slides or videos, can help keep the audience's attention and make the information easier to understand. Use relevant images and graphics to illustrate your points and keep the talk interesting.



#### CONDUCTING EDUCATIONAL TALKS IN YOUR SCHOOL OR COMMUNITY

BE DYNAMIC AND ENTHUSIASTIC Try to be exciting and enthusiastic when speaking to keep the audience's attention. Use interesting examples and anecdotes to make the talk more entertaining and memorable.

REQUESTS FEEDBACK

After the talk, ask the audience to give you feedback on what they liked and disliked about the talk. Use this information to improve your future presentations.

PRACTICE

After the talk, ask the attendees to tell you what they liked and what they didn't like. Use this information to improve your future presentations.

## **ADDITIONAL RECOMMENDATIONS...**

Notwithstanding this, here is a set of super important features to take as a basis when creating a talk or educational space:





#### PREPARING YOUR TALKS FOR BEACH OR RIVER CLEANUPS



Parley Dominican Republic

Before starting a beach, river or community cleanup, it is a good idea to talk to the volunteers about why they are doing this work, as well as to reflect together on the experience and what to do beyond the cleanups. These types of activities, designed with an educational approach, are highly effective in influencing consumer habits and behaviors, so taking advantage of the moment is of great interest to raise awareness of the issues discussed in Part 1 of this guide.

For talks during clean-up activities, it is a good idea to make an intervention in two spaces: the first before the start of the day, and the second after the end of the day. Guided by these moments, and taking into account the recommendations that we included throughout Part 2 of this guide, we give you the following recommendations...

## SETTING UP YOUR STARTUP TALK

#### **1. INTRODUCTION**

Greet the audience and thank them for attending the beach cleanup. Give a brief introduction of yourself and the organization you are representing. Discuss the importance of the cleanup day and how it is critical to the protection of the environment and marine wildlife.

#### 2. THE PROBLEM OF PLASTIC CONTAMINATION

Discusses the problems that pollution causes on beaches, such as the accumulation of garbage and toxic waste, and how this affects ecosystems and marine life.



#### PREPARING YOUR TALKS FOR BEACH OR RIVER CLEANUPS

#### 3. CREATE AWARENESS

Talk about the importance of raising awareness about beach pollution, and how small actions can have a big impact. Mention some tips to avoid beach pollution, such as using less plastic, not leaving trash, not throwing toxic waste into the sea, and not disturbing marine wildlife.

# 4. DESCRIBE THE CLEANING DAY

Explain how the beach cleanup will be conducted, and what areas will be covered. Also, discuss how tools will be distributed and how tasks will be divided among participants.

#### 5. SECURITY MEASURES

Remind the audience to take safety precautions during cleanup, such as wearing gloves and closedtoed shoes. Explain possible emergency situations and how they should be dealt with in case they occur.

#### 6. MOTIVATE AND THANK

Thank the audience for their participation and explain that their effort and commitment will be of great help to protect our planet. End by motivating the attendees to enjoy the cleanup and teamwork.

# PUTTING TOGETHER YOUR CLOSING SPEECH...

#### 1. CONGRATULATE THE ENTIRE AUDIENCE

Greet the audience and thank them for their effort and commitment to the beach cleanup. Congratulate them for their teamwork and for having contributed to the protection of the environment.



#### PREPARING YOUR TALKS FOR BEACH OR RIVER CLEANUPS

#### 2. CLEANING RESULTS

Comment on the results of the cleanup, such as the number of debris collected and the number of areas that were covered. Mention the positive aspects that were achieved and what can be improved in future cleanups.

#### 3. MAKE A JOINT REFLECTION

Invite the audience to reflect on the importance of cleaning beaches and how small actions can have a big impact on protecting the environment. Discuss how beach pollution affects marine wildlife and ecosystems, and how this affects us.

#### 4. GENERATE COMMITMENT

Encourage the audience to commit to protecting the environment, not only in beach cleanups, but also in their daily lives. Offer some practical recommendations to reduce pollution, such as reducing the use of plastics, recycling and responsible consumption.

#### 5. THANK YOU AND GOODBYE

Thank the audience again for their participation and commitment to the beach cleanup. Remind them how important it is to take care of the environment and the need to continue with this type of activities. Bid the audience farewell and encourages them to continue with the commitment to take care of our planet.

## **BE PREPARED BETTER FOR CLEANINGS...**





Discover the Practical Guide for Beach Cleanups, another PROMAR BlueBox tool where you will find instructions and recommendations on how to organize your own cleaning day!

## **APPENDIX A: TEST RESOLUTION**

#### **1 - WHY DO THE OCEANS MATTER?**

O They drive the climate and the global water cycle.

O Marine organisms produce more than half of the world's oxygen.

O The oceans absorb a large amount of excess carbon dioxide and heat.

💋 All of the above.

## 2 - HOW LONG DOES PLASTIC TAKE TO BIODEGRADE?

- of 1,000 years
- 🔘 100 years
- O 50 years
- Plastic never biodegrades



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