Course material prepared by adelphi research gGmbH

TRAINING OF TRAINERS

Strategies against marine plastic pollution – The BlueBox

Workbook for Training Course

Table of Contents

List of Abbreviations

BMUV	Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)
GIZ	German Development Cooperation
MFA	Material Flow Analysis
NGO	Non-governmental organization
PROMAR	Prevention of Marine Litter in The Caribbean Sea
ToT	Training of Trainers
WFD	Waste Flow Diagram

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PART I: BACKGROUND

I Prolog

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. As further project countries the British Virgin Islands, St. Kitts and Nevis, Trinidad and Tobago, Guyana and Suriname joined the project.

PROMAR is funded by the **German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV)** and led by the German organization adelphi.

Within the framework of the project, the **PROMAR BlueBox** was created, a collection of various tools, guidelines, tutorials and materials that will help you implement circular economy solutions to reduce marine litter in your municipality. Based on the PROMAR BlueBox, this **Training of Trainers (ToT) Course** was developed.

PROMAR committed itself to develop and conduct, in alliance with national and regional institutions, a ToT program ‘Strategies against marine litter’, targeting municipalities and other local stakeholders. The program enables participants to take focused actions, against marine plastic pollution and to become trainers on the BlueBox themselves. It is tailored for Spanish and English-speaking countries in the Caribbean region, and beyond.

II Context of this Workbook

The BlueBox is a collection of tools to combat marine plastic pollution and is freely available to users online. This training course is aimed at users of the BlueBox and future trainers who want to teach others how to use the BlueBox and its tools.

The freely available training material includes the following elements:

a.) A detailed schedule in Excel format that lists time units, topic blocks, necessary materials and responsible persons for each step of the training.
b.) A set of slides, that covers the whole two days and presents the content in an appealing, visual way.
c.) The present workbook.

This workbook complements on the set of slides that is provided. It contains the complete instructions for trainers and facilitators on how to conduct the BlueBox training course, including the content and the

methods for the training. Furthermore, it contains texts in more detail but also links to interesting audio-visual materials such as explanatory videos.

The workbook is intended for facilitators and participants of the training, especially if they themselves intend to become trainers in the sense of this course.

III Structure of the Workshop and the aligned Workbook

From the content chapter onwards, this workbook follows the structure of the Training of Trainers workshop, making it ideal for use as guidance material.

Table 1: Workshop Agenda

Day 1	Day 2
1 Introduction of Trainers and Participants - Learning Objectives of the course	**6 Welcome back and recap session**
2 Understanding the Problem of Marine Pollution - Reasons and consequences of the pollution problem	**Learning Module 4** - Working on Prevention Options
3 Introduction to the concept of Circular Economy	**Learning Module 5-6** - Working on Monitoring and Dissemination
4 Introduction to PROMAR and the BlueBox	**7 Closing Session**
Learning Modules 1-3	
5 Closing and Feedback	

The BlueBox is divided into 6 phases, which correspond to the modules of the training course. Each BlueBox phase contains tools, but not all of them can be covered in depth during training due to time constraints. The focus is therefore placed on a few important tools.

Table 2: Overview of Modules

Phase / Module	Workshop Focus	Further BlueBox Tools
1. Diagnosis and Baseline Establishment	Problem and Solution Tree Beach Data Sampling	Circular Economy Baseline Waste Flow Diagram Waste Characterization
2. Stakeholder Involvement	Stakeholder Map	
3. Sensibilization & Capacity-Building	Practical Guide for Beach Cleanups	Guide for Sensibilization and Capacity Building Ocean Warriors: Educational Kit for Ocean Conservation
4. Implementation of Prevention and Management Tools	Floating Barriers: River Boom and Bio-barriers Integration of Marine Litter into Municipal Solid Waste Plans Collection Stations: Tools for Collecting Plastic Waste Circular economy in a municipality	
5. Evaluation and Monitoring	KAP Survey Marine Litter: Knowledge + Attitude + Practice	
6. Dissemination & Multiplication	Guide: Documentation and Dissemination	

PART II: TRAINING CONTENT

1 Introduction of trainers and participants

Learning Objectives *After completion of this module:*	**Delivery Method(s) for Facilitators**
• Participants are introduced and get to know each other • Expectations and learning objectives are made clear	Presentations + Group Work
Resources required	**Duration**
Beamer (required during the whole training), Flipcharts (for Expectations, Goals) Sticky Notes, Pens	1h

1.1 Learning Objectives

The goal of this **Train of Trainers (ToT) workshop** on marine plastic pollution is to empower participants with the knowledge, skills, and resources needed to effectively train others on the subject.

The key objectives of the ToT workshop include:

- To understand the problem of untreated waste, mainly plastics, that pollutes water bodies and oceans
- to understand the many negative economic, social, ecological and health consequences of this waste
- to be familiar with the general concept of “Circular Economy”
- to understand and apply the BlueBox and its tools to take holistic local action against plastic pollution (plan the action, gather stakeholders, conduct measures, evaluate and disseminate)
- to be able to understand and implement certain measures presented in the tools, e.g. carry out beach data sampling / stakeholder analysis / understand prevention and management tools like river interceptors
- extra: understand how to organize and prepare a training course

Note: This workshop / Training of Trainer is not meant to be only frontal teaching.

It should rather be a process of co-creation, meaning a collaborative process that involves participants and facilitators. The content should be explored together and in groups, everyone should contribute their own experiences so that participants can get the most out of the training.

2 Understanding the Problem of Marine Pollution

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• understand the problem including its underlying causes, of untreated waste, mainly plastics, that pollutes water bodies and oceans • to understand the many negative economic, social, ecological and health consequences of this waste	Presentations + Group Work Groups to prepare mind maps e.g. regarding pathways of marine pollution Peer-to-Peer presentation of the mind maps
Resources required	**Duration**
Beamer, Pens, Flipchart, Sticky Notes	30 min
Further Resources: • Factsheet about Plastic Pollution from the International Union for Conversation of Nature (IUCN) • **Parley for the Oceans:** Guide for Sensibilization and Capacity Building (Ocean 101) • **Cegesti School Material:** Reduciendo la contaminación por residuos sólidos en nuestras playas	

Group activity - What do you know about marine litter and its effects?

Task: The participants discuss amongst each other: What is your understanding of marine litter and its consequences? Share quickly some insights from your community! (10 min)

Facilitator: writes down some of the common points on stick notes and puts them on the pinboard.

Definition.

Marine plastic pollution refers to human-made waste material from plastic that ends up in the oceans or in coastal environments. The very slow rate of degradation, together with the growing quantity of the litter disposed, is leading to an increase in marine litter found at sea and on the shores. The presence of it poses **significant threats to ecosystems, human health, and aquatic life.**

Case Study - Three PROMAR case studies will be quickly presented, (one can be chosen that fits the country circumstances best)

(1) Santo Domingo Este, Dominican Republic.

Figure 1: Location of Santo Domingo Este in the Dominican Republic

(1) A Material Flow Analysis (MFA) was conducted in the municipality, based on the methodology of the Waste Flow Diagram (see BlueBox), as well as two waste samplings at the three beaches selected as demonstration sites. The results show:

≈ 72.7 tons of plastic waste generated per year in the municipality

≈ 13.7 t are not properly collected

≈ 8.3 t (8.000 kilograms - 11.5%) end up in water bodies!

2.1 General reasons for the pollution problem

- **Inadequate Waste Management Infrastructure**: Many countries in the Caribbean face challenges in establishing and maintaining robust waste management systems. Limited resources and infrastructure can result in inadequate waste collection, disposal, and recycling facilities, leading to improper handling of plastic waste.
    - **Lack of Recycling Facilities:** The scarcity of recycling facilities contributes to the accumulation of plastic waste. Without proper recycling infrastructure, a significant portion of plastic materials ends up in landfills or is disposed of improperly, exacerbating the pollution problem.
- **Single-Use Plastic Consumption**: The prevalent use of single-use plastics, such as plastic bags, bottles, and packaging, is a major contributor to plastic pollution. These items are often discarded after a single use and can take years to break down in the environment.
    - **Sharp Increase** in plastic and single-use plastic in recent decades
- **Tourism Impact:** The Caribbean region is a popular tourist destination, and the influx of visitors can lead to increased consumption of single-use plastics. Tourism-related activities often contribute to plastic pollution, as visitors may not be aware of or prioritize local waste management practices.
- **Geographic Vulnerability:** The geographic location of many Caribbean nations makes them vulnerable to the impacts of plastic pollution. Ocean currents can transport plastic debris from other regions, adding to local pollution challenges. Additionally, the proximity to water bodies makes these nations susceptible to marine plastic pollution.

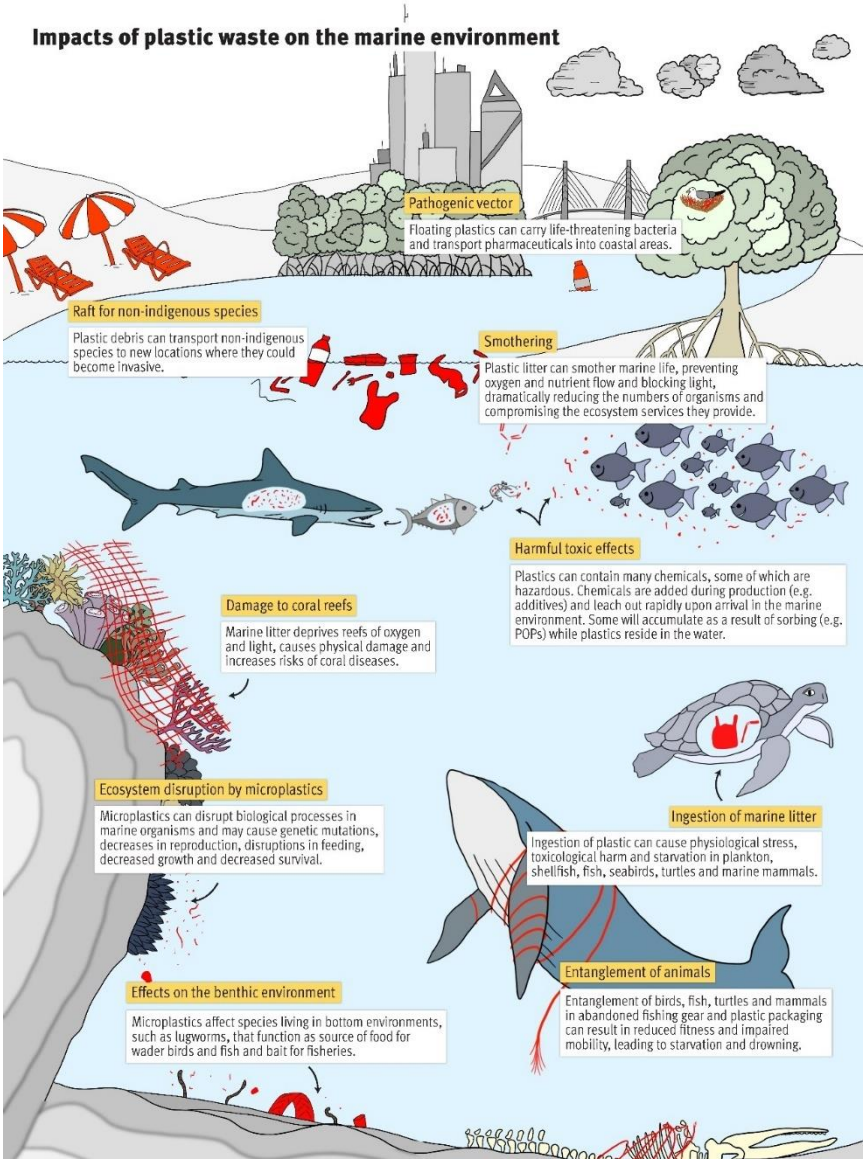
- **Limited Awareness and Education:** Lack of awareness about the environmental impacts of plastic pollution and insufficient education on proper waste disposal contribute to irresponsible plastic waste management practices. Public awareness campaigns and educational initiatives are crucial in addressing this issue.
- **Illegal Dumping and Littering:** Improper disposal of plastic waste through illegal dumping and littering is a widespread problem. Insufficient law enforcement and penalties for such activities can result in a lack of accountability, allowing plastic pollution to persist.
- **Economic Constraints:** Economic constraints in some Caribbean countries may hinder investments in sustainable waste management practices and recycling infrastructure. Limited financial resources can impede the development of comprehensive solutions to address plastic pollution.

2.2 Consequences of marine plastic pollution

Table 3: Consequences of marine plastic pollution

Environmental Consequences	Economic Effects	Human Health
• Ingestion of plastic leading to health issues or death of animals • Entanglement in plastic debris • Accumulation of microplastics in oceans affecting plankton and other marine life • Additives contained in the plastic are dissolved and harm the ecosystem	• Disruption of ecosystems affecting fisheries and tourism • Decline in revenue for industries depending on marine resources • Aesthetic degradation of beaches and coastal areas due to plastic litter – fewer tourists • Costs associated with cleaning efforts	• Direct health risks for coastal communities through contact with polluted water and beaches • Consumption of contaminated seafood leading to health problems • Microplastic in the food chain

Figure 2: Impacts of plastic waste on marine environment - Source: UNEP (2021) Drowning in plastics – Marine Litter and Plastic Waste Vital Graphics



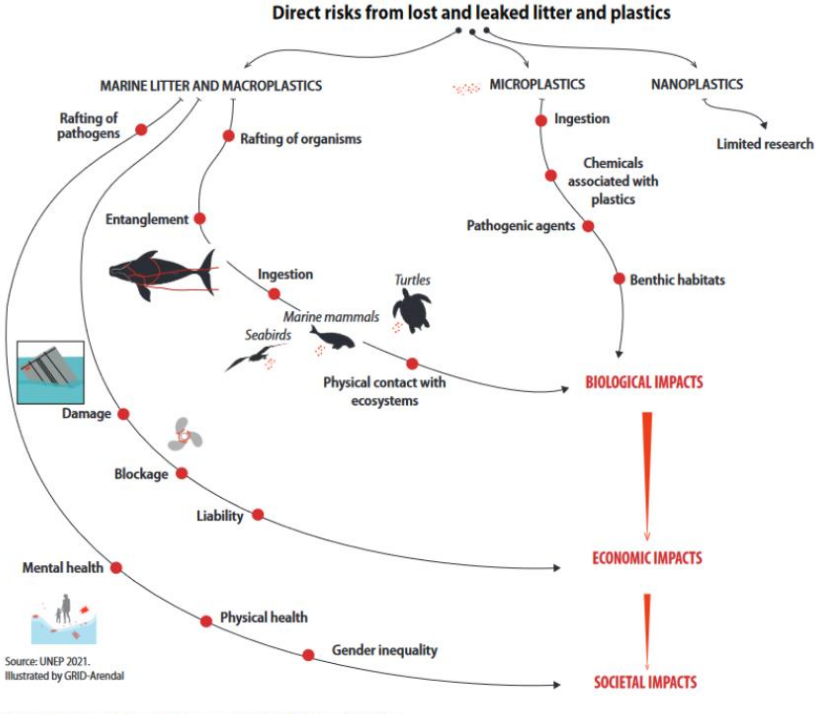


Figure II: Direct risks and impacts of marine litter and plastics

3 Introduction to the Concept of Circular Economy

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• know the waste hierarchy • understand the concept and the rationale behind the idea of circular economy	Presentations + Group Work Peer-to-Peer presentation of the mind maps
Resources required	**Duration**
Beamer, Pens, Flipchart, Sticky Notes	30 min
Further Resources: • Optional video for further insights: Our Vision of circular economy for plastic. Ellen MacArthur Foundation.	

3.1 Waste hierarchy

Fig. 3 presents the common waste hierarchy, adopted by the European Union. The graphic is used in the evaluation of processes that protect the environment, resources and energy consumption from most favorable to least favorable actions. At the bottom of the pyramid is the one to be applied least and at the same time the least sustainable practice.

Figure 3 Waste hierarchy.

At the top is waste prevention, e.g. by designing products in a way that they are repairable and durable. This is followed by the reuse of products or materials. Recycling comes next, where waste is transformed into new products. If these options are not feasible, the energetic use of waste should be considered before final disposal in landfills. Landfilling of materials must ultimately be almost completely avoided.

3.2 Linear to Circular Economy

The prevailing linear economy operates on the "take-make-waste" paradigm, wherein products and packaging are created, used, discarded, and ultimately end up in landfills, resulting in the loss of valuable materials. This linear approach contributes significantly to elevated CO2 emissions and the depletion of Earth's finite resources.

In contrast, a circular economy embodies a transformative model where finite resources, particularly non-renewable raw materials, are circulated and recycled whenever feasible. Inspired by the regenerative cycles observed in nature, where waste is virtually nonexistent, the circular economic model strives to manage and reintegrate finite resources into a technical cycle. Ideally, these resources are perpetually used within products, aiming for a sustainable and continuous loop. While achieving a waste-free system may be challenging, the circular economy strives to minimize waste generation and maximize the lifespan and utility of resources. This innovative approach represents a shift towards sustainability and responsible resource management, mitigating the environmental impact associated with traditional linear practices.

3.3 Circular Economy against plastic pollution

In the battle against plastic pollution, the circular economy emerges as a beacon of hope. Rather than viewing plastic as a single-use item destined for landfill or oceans, the circular economy reimagines its lifecycle. Through innovative recycling, repurposing, and sustainable design, plastics find new life in a continuous loop of usefulness. By closing the loop, we not only mitigate pollution but also conserve resources and protect ecosystems for future generations.

Optional video for further insights: Our Vision of circular economy for plastic. Ellen MacArthur Foundation.

3.4 Group Activity - Importance of waste management and the concept of Circular Economy

1. Divide the room in two groups
2. Each group has 10 min to prepare a joint mind map.
3. Each group takes 10 min to present the mind map to the others.

Group 1: Pathways of marine pollution in a country of your choice (might be the country of origin of the majority of group members)

Group 2: State of waste management and circular economy for plastics in a country of your choice.

4 Introduction to PROMAR and the BlueBox

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• Know the PROMAR project • Understand the concept of the BlueBox as a toolbox against marine plastic pollution • Understand the origin of the tools • Learn to navigate around on the website	Presentation by facilitator Panel discussion (Genesis of the toolbox, origin of the tools in the pilot projects)
Resources required	**Duration**
Beamer	1h

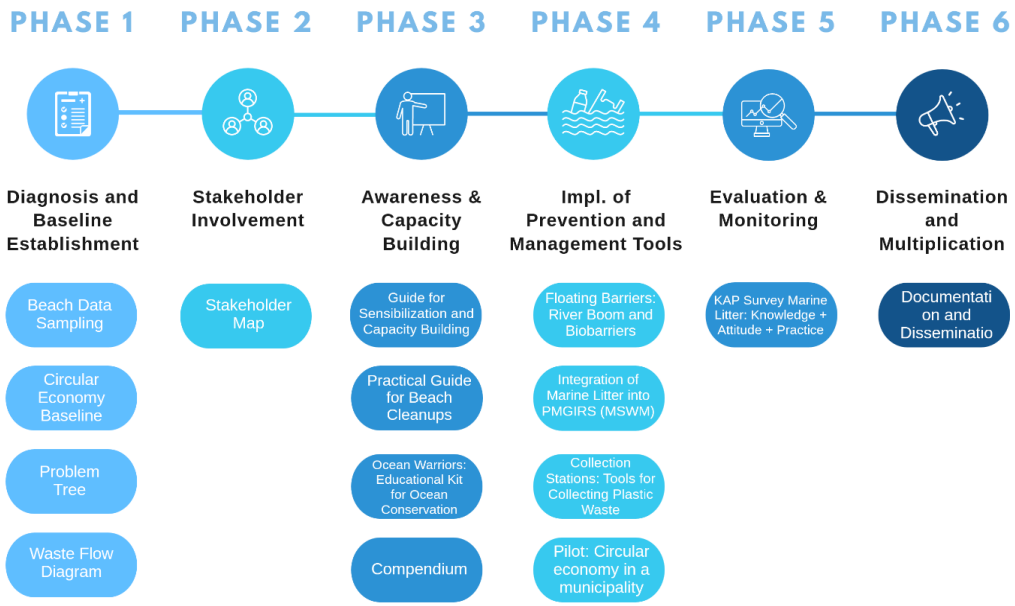
The PROMAR BlueBox is a collection of instruments, tools, guidelines, tutorials, dissemination and training materials, success stories and good practices. These tools will help you to focus actions and guide you through the process of defining and implementing Circular Economy (CE) actions **to reduce marine litter in your municipality.**

The BlueBox offers a range of tools that follow an order that is depicted in the visualization. The tools follow a structure of six phases.

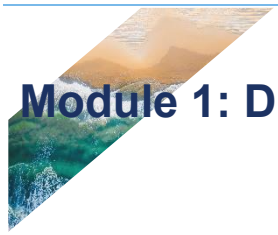
However, they can be used with flexibility. It is not necessary to follow a step-by-step approach, but the tools can be chosen to meet the demands of the specific situation, without the need to follow a predetermined order or use them all.

Figure 4: The six phases of the BluBox and their descriptions

Figure 5: The six phases of the BlueBox and the tools they contain



ENERGIZER 15 min Group Activity!



Module 1: Diagnosis and Baseline Establishment

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• Understand phase 1 of the BlueBox and its tools • Apply the Problem Tree and the Beach Data Sampling Tool • Shot didactical part on teaching this training at the end of the module	Presentations + Group Work
Resources required	**Duration**
Beamer, Flipcharts, Sticky Notes	1:50 h

Module one:

- Serves to define baselines for further data processing
- Analyze the impacts of plastics in marine environments
  - How much waste is generated in a municipality?
  - Which kind of waste is entering the environment?
  - Where in the waste management chain are leaks?

Tool: Problem and Solutions Tree

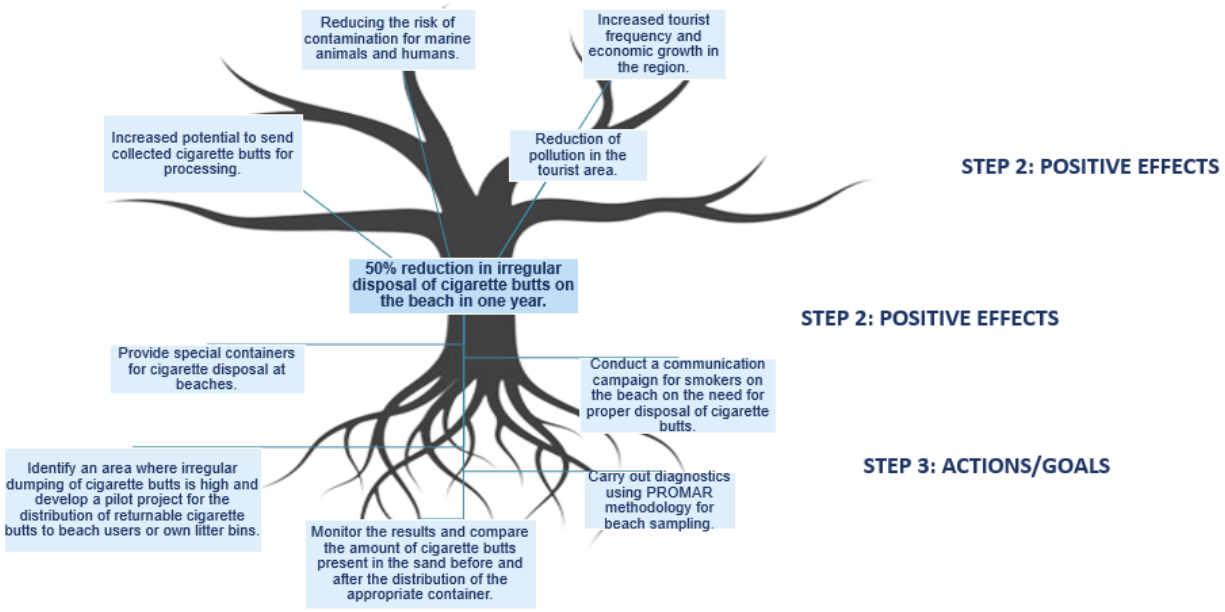
Objective of the Tool	**Delivery Method(s) for Facilitators**
• clear understanding of an environmental problem with its causes and effects	Presentations + Group Work
Format and Difficulty	**Main appliers**
Excel tool, with fillable graphic (can be also done with pen & paper) Easy to apply.	municipalities / other organizations to analyze pressing problems they face
 **Find the tool with explanations and examples here.**	

The Problem Tree Analysis is a project management method for analyzing issues, like municipal waste management. It visually represents existing problems by mapping causes and effects around a specific issue, aiding planning processes. Essential for stakeholder engagement, this tool organizes causes, consequences, and solutions in a tree format, enhancing clarity and facilitating more efficient problem-solving.

This tool allows to:

- Identify the problems faced and their possible causes and consequences,
- Visualize a plan of action with concrete objectives and actions to be taken,
- Develop solutions to the problems posed in an effective manner,
- Consider all factors at play during problem solving,
- Clearly inform all stakeholders of the problems to be solved and actions to be taken.

Figure 6: Problem Tree



The tool is divided into two phases. The first phase is the identification of the problem, its causes and consequences. The second phase is the development of possible solutions, setting out concrete actions to be taken.

Group Activity - Tool Problem and Solutions Tree:

- **30' Tool is worked on in groups** (groups identify a problem of their choice)
  - chose a pressing problem for your municipality
  - identify causes and consequences
  - we will continue to work with this case throughout the other tools
- groups peer-to-peer present the tool to the other groups, 5’ per group (in total 20')

Tool: Beach Data Sampling

Objective of the Tool	Delivery Method(s) for Facilitators
Understand the type of waste arriving at the coasts & know sampling practices for solid waste on beaches	Presentations + Group Work
Format and Difficulty	**Main appliers**
Excel tool for entering data and PDF instruction manual Easy - intermediate	authorities, project responsible/ NGOS
Find the tool with explanations and examples here!	

The objective of the Methodological Guide is to systematize the steps to obtain information on the amount and types of waste that accumulate on beaches, as well as information on the generators and/or producers of the items that end up becoming marine litter and that come from land-based sources. This type of sampling provides valuable baseline information from which to develop strategies and actions focused on the types of waste that are most critical for each beach or coastal community.

The methodology consists of three elements:

- an Excel Tool to enter the found objects, which generates illustrative graphics based on the data
- a PDF instruction manual, to guide you through the necessary steps
- 2 explanatory videos, how to conduct the sampling and how to interpret the received data

Tutorial Video (1): Beach Data Sampling

Tutorial Video (2): Data interpretation of Beach Data Sampling

Tool: Waste Flow Diagram

Objective of the Tool	Delivery Method(s) for Facilitators
Enabling a rapid assessment of municipal solid waste management (MSWM) system • Mapping and visualizing materials flows • Quantifying the sources and fates of plastic leakage into the environment	Presentation by facilitator

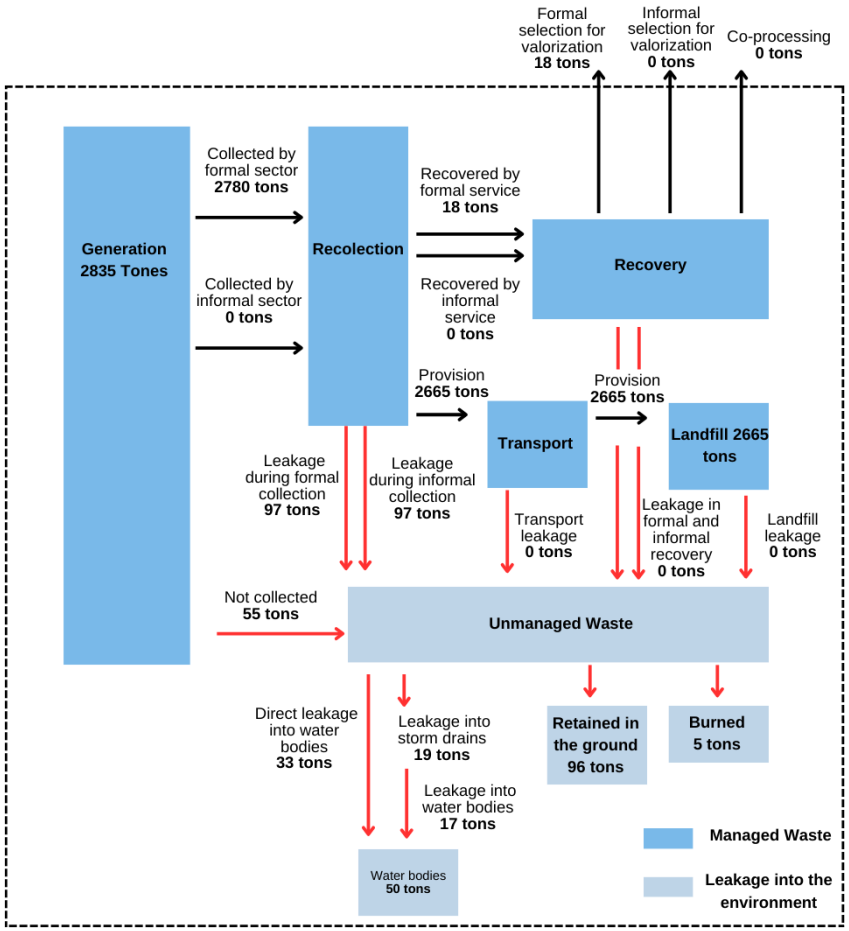
• Enabling alternative scenarios to be forecasted • Allowing benchmarking and comparison between cities	
Format and Difficulty	**Main appliers**
online portal to enter the waste data intermediate- difficult	Municipalities, NGOs
Find the tool with explanations and examples here!	

Tool consists of the following elements:

- Online portal to enter data
- Helpful resources, explanatory videos, real-life cases and a manual on how to use it by the GIZ

Teaser Video: Waste Flow Diagram Teaser Video

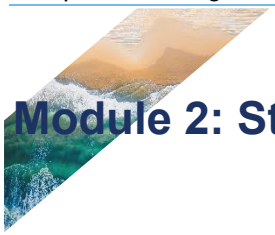
Figure 7: Waste Flow Diagram



Didactics of Module 1

Each **module** should end with a short reflection (10') on the didactics if participants are being trained to deliver the training themselves.

1. **Reflection on the Learning Process**:
    - What new information have I learned in this module?
2. **Connection with Personal Experiences**:
    - How can I apply what I've learned to my own experiences or professional life?
3. **Critical Examination and Discussion**:
    - Are there aspects of the topic that I haven't fully understood or that I want to learn more about?
    - What questions do I have about the presented information or the introduced tools?
4. **Application of Teaching:**
    - Are there specific actions or measures that I want to implement as a result of this module? Do I have feedback or suggestions for improving the module or the teaching methods?
    - What additional resources or information would help me better understand the topic or learn more effectively?



Module 2: Stakeholder Involvement

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• The learning objective is to identify project stakeholders and involve them effectively using tools like stakeholder maps and workshop guides.	Presentations + Group Work Peer-to-Peer presentation and plenary discussion
Resources required	**Duration**
Beamer, Flipcharts, Sticky Notes	45’

The aim of this step is to identify the relevant stakeholders for the project and involve them accordingly! Two main tools are available for this purpose: The stakeholder map to identify the respective people and a stakeholder workshop guide, to help you organize a participatory stakeholder workshop.

Guiding questions for this step:

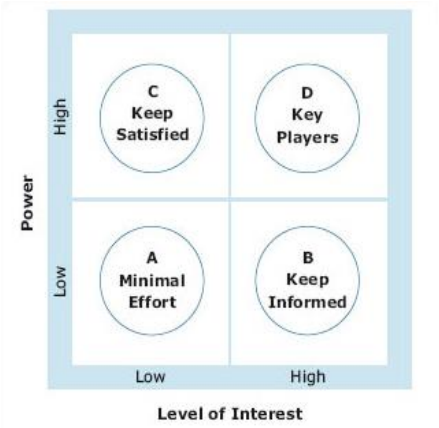
- Who is impacted by plastic pollution and who causes it?
- Who can provide solutions through funding, calls for action or political imitative?

Tool: Stakeholder Map

Objective of the tool	**Delivery Method(s) for Facilitators**
Identification and classification of stakeholders in a given context	Presentations + Group Work
Format and Difficulty	**Main appliers**
Excel tool, with interactive graphic (can be also done with pen & paper)	professionals involved in socio-environmental projects
Find the tool with explanations and examples here!	

The objective of this tool is to map and classify the relevance of the different stakeholders involved or likely to be involved in the prevention and fight against marine litter and in the promotion of the Circular Economy. In general, all stakeholders that may be impacted or impact the project, may support the project (with expertise, financial resources, manpower, political support etc.) or are indispensable for its implementation, or that are part of the solid waste management in the project area, should be considered.

Figure 8: Power and Interest Matrix



Source: Power and Interest Matrix by Mendelow (1991)

Group Activity - Tool Stakeholder Map:

- 20' Group work
  - 10’ list stakeholders
  - 10’ put them in the matrix
- 15' 2-3 groups present their results
- 10' Plenary Discussion

5 Feedback Session

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
Feedback sessions in training are crucial. They help participants understand their progress, aid trainers in refining their methods, promote open communication, and bridge theory with practice for effective learning. Didactical Reflections	Presentations + Group Work
Format and Difficulty	**Main appliers**
Beamer, Flipcharts, Sticky Notes	Not applicable

 # Feedback is essential for development and improvement of such formats. It can provide valuable insights, constructive criticism, and encouragement. By fostering open communication, feedback cultivates a culture of collaboration and innovation. We can take learning from the first day into the second one.

15’ write your feedback on sticky notes (5’ introduction + 10’ feedback on sticky notes).

- What did you like?
- What do I want so see more tomorrow, what do I want different tomorrow?

Didactics

1. **Critical Examination and Discussion**:
    - Are there aspects of the topic that I haven't fully understood or that I want to learn more about?
    - What questions do I have about the presented information or the introduced tools?
2. **Application of Teaching:**
    - Do I have feedback or suggestions for improving the module or the teaching methods?
    - What additional resources or information would help me better understand the topic or learn more effectively?

END OF DAY ONE

MODULE 1 AND 2 DONE!!

DAY 2

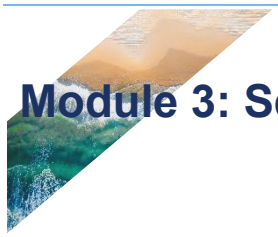
6 WELCOME BACK and recap session

Group Activity - welcome back & recap session:

- What content from yesterday did you find particularly interesting & why?
- form couples of two
- 2' per person then change
- what did you think about yesterday evening / this morning in regards to the first day?
- 10' plenary discussion

Table 4: Workshop Agenda

Day 2
6 Welcome back and recap session
Learning Module 4 - Working on Prevention Options
Learning Module 5-6 - Working on Monitoring and Dissemination
7 Closing Session



Module 3: Sensibilization & Capacity-Building

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• The learning objective is to raise awareness about marine plastic pollution through school materials, a Guide for Sensitization and Capacity Building, and by learning to conduct impactful beach clean-ups that serve as awareness events.	Presentation by facilitator
Resources required	**Duration**
Beamer, Slides, Video	55’

This step is for a part of the initiatives that is of vital importance: **creating awareness and environmental education.** The step therefore contains school materials on the topic of marine plastic pollution, as well as a Guide for Sensibilization and Capacity Building, which introduces the topic of oceans, climate and pollution. Furthermore, the step contains a guide for carrying out beach clean-ups, which, in addition to the actual waste disposal, primarily serve as awareness events.

Tool: Beach Clean Up Guide

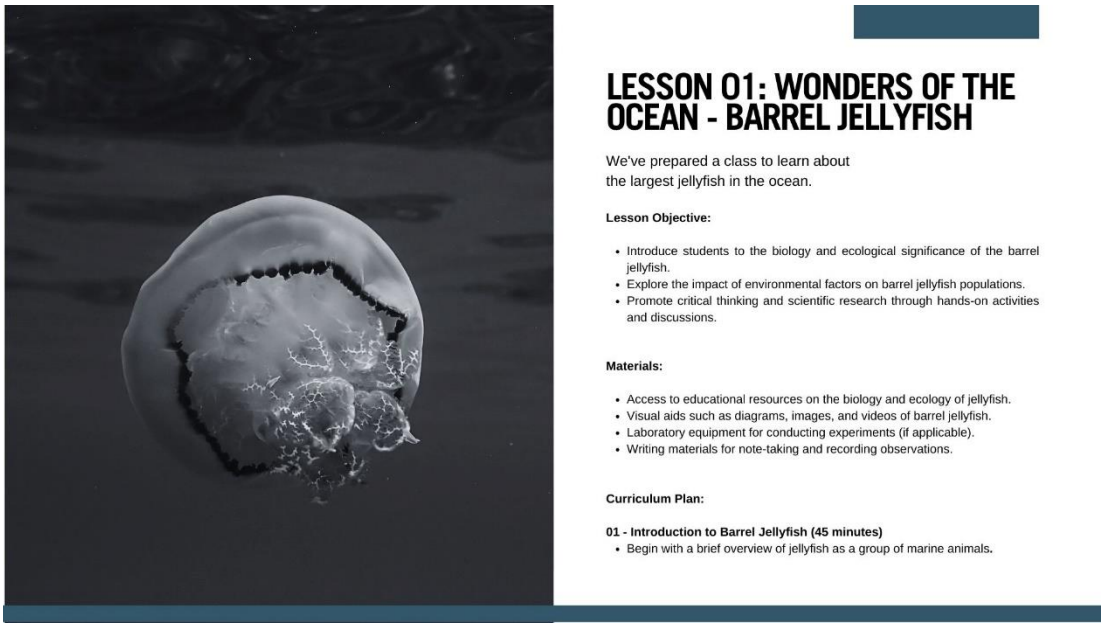
Objectives of the tool	**Delivery Method(s) for Facilitators**
To promote a standard framework for references on how to make cleanup efforts under an educational and zero-plastics perspective	environmental educator, a sustainability consultant, or a representative from a non-profit organization focused on environmental conservation and education.
Format and Difficulty	**Main appliers**
PDF-Guide Easy	Individuals, organizations and municipalities
Find the tool with explanations and examples here!	

- a visual guide to help organize cleanups, promote marine litter prevention, and raise awareness
- supports setting up cleanups, initiating waste management dialogues, and encourages organizations to innovate based on local context.

Tutorial Video: Beach Cleanup Tutorial

Ocean Warriors: Educational Kit for Ocean Conservation

Objectives of the Tool	Delivery Method(s) for Facilitators
A comprehensive resource designed to educate and inspire students about the importance of ocean conservation and marine debris prevention	environmental educator, a sustainability consultant, or a representative from a non-profit organization focused on environmental conservation and education.
Format and Difficulty	**Main appliers**
PDF Guide for Schools, addition to the curriculum Easy	teachers and pupils
Find the tool with explanations and examples here!	



LESSON 01: WONDERS OF THE OCEAN - BARREL JELLYFISH

We've prepared a class to learn about the largest jellyfish in the ocean.

Lesson Objective:

- Introduce students to the biology and ecological significance of the barrel jellyfish.
- Explore the impact of environmental factors on barrel jellyfish populations.
- Promote critical thinking and scientific research through hands-on activities and discussions.

Materials:

- Access to educational resources on the biology and ecology of jellyfish.
- Visual aids such as diagrams, images, and videos of barrel jellyfish.
- Laboratory equipment for conducting experiments (if applicable).
- Writing materials for note-taking and recording observations.

Curriculum Plan:

01 - Introduction to Barrel Jellyfish (45 minutes)

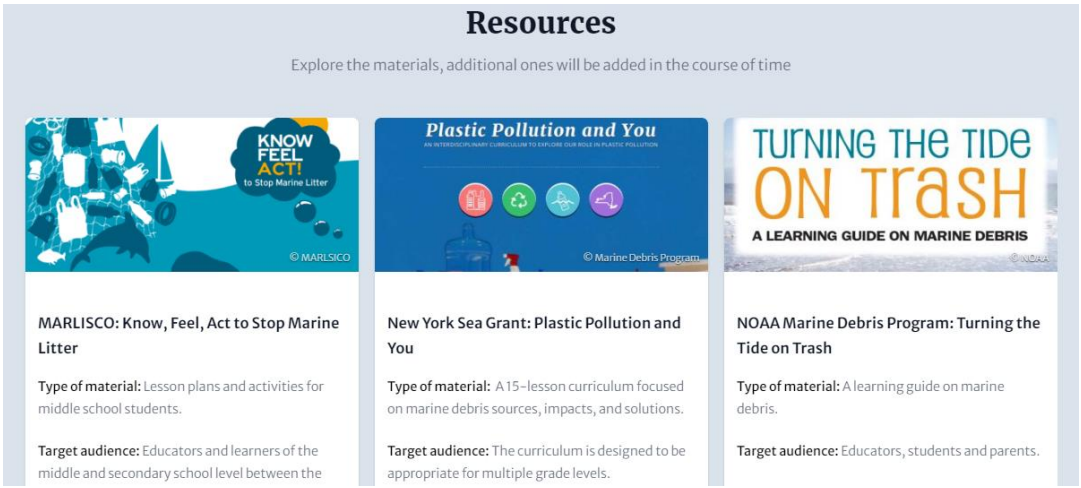
- Begin with a brief overview of jellyfish as a group of marine animals.

The Compendium

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
Knowing that they have a compendium available on the PROMAR website providing a comprehensive centralized repository of resources in English and Spanish focused on marine plastic pollution	Presentations + Group Work
Format and Difficulty	**Main appliers**
PDF-Guide Easy	Individuals, organizations and municipalities
Find the collection of resources here!	

The PROMAR website offers a "compendium" menu where you can find many useful resources on marine plastic pollution in English and Spanish. The materials are linked on the website with short descriptions. It contains results of completed projects, such as educational materials, interesting databases, other toolboxes in the field of marine pollution.

Figure 9: Web view of the compendium on promar.org



Didactics of Module 3

1. **Reflection on the Learning Process**:
    - What new information have I learned in this module?
2. **Connection with Personal Experiences**:
    - How can I apply what I've learned to my own experiences or professional life?
3. **Critical Examination and Discussion**:
    - Are there aspects of the topic that I haven't fully understood or that I want to learn more about?
    - What questions do I have about the presented information or the introduced tools?
4. **Application of Teaching:**
    - Are there specific actions or measures that I want to implement as a result of this module? Do I have feedback or suggestions for improving the module or the teaching methods?
    - What additional resources or information would help me better understand the topic or learn more effectively?

Module 4: Implementation of Prevention and Management Tools

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
Analyzing pilot projects fighting marine plastic pollution offers insights on effective strategies, technological solutions, and collaborative approaches. It informs future initiatives, emphasizing coordinated efforts to address this pressing global issue.	Presentations + Group Work
Format and Difficulty	**Main appliers**
Difficult to implement	Municipalities / authorities / NGOs / international development organizations

4 DIFFERENT PRACTICAL IMPLEMENTATION TOOLS

- were created as a result of the PROMAR pilots in Colombia, Costa Rica and the Dominican Republic
- different pilots / tools are briefly introduced
- we will explore these tools and see if and how well they apply to different cases

Tool: Floating Barriers: River Boom and Biobarriers

Tool objective	Delivery Method(s) for Facilitators
The tool systematizes the process of constructing and installing floating barriers in canals, rivers, or other water bodies. These barriers help prevent plastic debris from land-based sources from becoming marine litter by intercepting it.	Presentations + Group Work
Format and Difficulty	**Main appliers**
PDF-Guide Easy to understand the guide, difficult to implement / build	Municipalities or NGOs
Find the tool here!	

- The tool explains the constructing and installing of floating barriers in canals, rivers, or other water bodies.
- These barriers play a vital role in capturing plastic waste from terrestrial sources to stop it from becoming marine litter.

Video Tutorial

Tool: Collection Stations: Tools for Collecting Plastic Waste

Tool objective	Delivery Method(s) for Facilitators
The tool introduces users to the concept and realization of Collection Stations as a place for the collection and sorting of plastic waste, as well as educational facilities. Two pilot projects, Collection Containers and Collection Points, are described as case studies.	Presentation by facilitator
Format and Difficulty	**Main appliers**
PDF Guide, Easy to understand the guide, difficult to implement / build	Municipalities or NGOs
Find the tool here!	

Tool Guide: Integration of Marine Litter into PMGIRS (MSWM)

Tool objective	Delivery Method(s) for Facilitators
The tool guides municipalities on how to integrate the perspective of marine litter in their municipal solid waste plans, establishing activities and indicators about marine litter prevention and extended producer responsibility**.**	Presentations + Group Work
Format and Difficulty	**Main appliers**
PDF Guide Easy to understand and implement	Coastal municipalities
Find the tool here!	

Video Tutorial

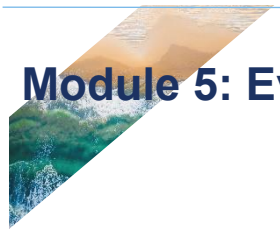
Group Activity: Working Session on Implementation Tools

- Participants divide into groups and are assigned one of the four tools.
- Each group focuses on their assigned tool for 30 minutes before rotating to the next one.
- After exploring all four tools, participants evaluate whether they would use or apply each tool and provide reasons for their decisions.
- Each group then presents one tool for 15 minutes to the other, discussing if they would choose this prevention mechanisms /strategy for their local context
- Explain the reasons: why do you like it, why not? Would you apply it / why not?

Didactics of Module 4

1. **Reflection on the Learning Process**:
   - What new information have I learned in this module?
2. **Connection with Personal Experiences**:
   - How can I apply what I've learned to my own experiences or professional life?
3. **Critical Examination and Discussion**:
   - Are there aspects of the topic that I haven't fully understood or that I want to learn more about?
   - What questions do I have about the presented information or the introduced tools?
4. **Application of Teaching:**

- Are there specific actions or measures that I want to implement as a result of this module? Do I have feedback or suggestions for improving the module or the teaching methods?
- What additional resources or information would help me better understand the topic or learn more effectively?



Module 5: Evaluation and Monitoring

Learning Objectives *After completion of this modules, participants will be able to:*	**Delivery Method(s) for Facilitators**
• The learning objective is to monitor intervention outcomes and adjust strategies as needed, using a specific tool.	Presentation by facilitator
Resources required	**Duration**
Beamer, Slides	10’

This process step is about monitoring the outcomes of the interventions and adapt accordingly. Until now there is only one tool in the phase:

Tool: KAP = Knowledge+Attitude+Practice.

Objectives of the Tool	**Delivery Method(s) for Facilitators**
The KAP tool is an online survey that is available for users to monitor their own pilot projects.	Presentations + Group Work
Format and Difficulty	**Main appliers**
Written form and online survey Intermediate difficulty	project responsible/ NGOS
Find the tool here!	

The purpose of the KAP tool is to continuously evaluate the knowledge, attitudes, and practices of the communities where pilot projects are implemented. The initial evaluation should take place before the implementation phase and further evaluations should be scheduled in order to measure any changes and improvements in the community.

Module 6: Dissemination and Multiplication

Learning Objectives *After completion of this modules, participants will be able to:*	Delivery Method(s) for Facilitators
• Effectively share successful approaches for replication and communicate preventive actions, detailing the steps taken for their implementation.	Presentation by facilitator
Resources required	**Duration**
Beamer, Slides	15’

Share & communicate successful approaches to be replicated by others. Communicate about preventive actions and explain how they were done!

10’ to be presented by the moderator

Tool: Documentation and Dissemination

Objectives of the Tool	Delivery Method(s) for Facilitators
Users will find information in this guide on how to document, communicate and scale-up their important work against marine litter within and beyond their community.	Presentations + Group Work
Format and Difficulty	**Main appliers**
PDF Guide easy	everybody involved in project against marine plastic pollution
Find the tool here!	

7 Closing Session

Group Activity:

10' Recap of Key Learning Points

20' Participant Feedback and Evaluation

15' Discussion: What to do with the learning “back home”

Didactics

1. **Critical Examination and Discussion**:
    - Are there aspects of the topic that I haven't fully understood or that I want to learn more about?
    - What questions do I have about the presented information or the introduced tools?
2. **Application of Teaching:**
    - What additional resources or information would help me better understand the topic or learn more effectively?

Contact information

Guide and training material produced by adelphi research gGmbH.

PROMAR: PREVENTION OF MARINE LITTER IN THE CARIBBEAN SEA

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BLUE BOX

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On behalf of:

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

of the Federal Republic of Germany