



# Marine Litter for Synergies, Capacity-building and Peacebuilding

Deliverable

D4.3 Policy Guide Roadmap and Action Plan Report



*MarLitCy Project is funded by the European Union under the Cypriot Civil Society in Action VI grant scheme and implemented by the Famagusta Walled City Association (MASDER), AKTI Project and Research Centre, Enalia Physis Environmental Research Centre and North Cyprus Diving Centres Association. This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of the above-mentioned associations and do not necessarily reflect the views of the European Union.*

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July 2020

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## Acronyms

CSO: Civil Society Organisation

EU: European Union

KPI: Key Performance Indicator

MARLISCO: Marine Litter in Europe Seas: Social Awareness and Co-reponsibility

MarLitCy: Marine Litter for Synergies, Capacity-building and Peacebuilding

MELTEMI: Marine Litter Transnational Legislation Enhancement and Improvement

MSFD: Marine Strategy Framework Directive

NGO: Non Governmental Organisation

# 1. Introduction

Marine litter, defined as any man-made, solid material accidentally or intentionally discarded in the marine and coastal environment, is one of the most pressing global environmental challenges. Marine litter can be seen floating in water or washed ashore on beaches, and litter has also been found in deep remote areas. Plastics are the most abundant and persistent form of marine litter globally. Encounters between marine litter and 693 species of marine organisms have been recorded to date, the majority of which involve plastic litter. The effects of marine litter on the marine environment and marine organisms are detrimental, causing entrapment, suffocation, incapacitation and drowning. Small pieces of plastics, called microplastics are increasingly being identified in marine organisms destined for human consumption. The possible effect that this can have on human health remains uncertain.

Marine litter is an emerging global threat surpassing geographical and political boundaries. But marine litter is also a powerful peace-building tool that has the potential to combat prejudices and foster cooperation among the Cypriot communities, providing with a common win-win target: keep our seas and coasts clean!

MarLitCy 'Marine Litter for Synergies, Capacity-building and Peacebuilding' ([www.marlitcy.eu](http://www.marlitcy.eu)) seeks opportunity spaces for changes in active citizenship and bi-communal collaboration, by exploiting an environmental issue of European importance; marine litter. Through the implementation of activities involving the transfer of internationally-recognised best practices the project aims to raise awareness to key target groups and the general public about the issue of marine litter, and to promote the uptake of practices that aim to minimize the creation of marine litter across the island.

One of the project's key activities concerns the development of consultation structures between civil society, local communities and local bodies in order to revise the 'legal framework' related to the protection of the marine environment in the northern part of Cyprus. The purpose of this activity is two-fold: (i) to actively involve non-conventional stakeholders, such as CSO representatives, youth organisations etc. in decision-making and (ii) to help bring the 'legal framework' related to the marine environment in the northern part of the island in line with EU Directives.

For the implementation of this activity, the MarLitCy partnership subcontracted the author, Dr. Xenia I. Loizidou, as the project's decision-support expert.

This report presents the outcomes from the implementation of this activity. It begins with a presentation of the method used and the results from each step of the method's implementation. The report concludes by suggesting a Roadmap and relevant Action Plan for action plan for local legal text reforms reforms in the northern part of Cyprus to better safeguard the sustainability of the marine and coastal environment from the threat of marine litter.

## 2. The DeCyDe-4-MarLitCy method: Grassroots approach to policy-making

This section presents the method that was implemented for the development of the Roadmap and the Action Plan for the harmonisation of the policy framework in the northern part of Cyprus to that of the EU.

### 2.1. Introduction to the DeCyDe-4 method

DeCyDe-4 is a participatory decision support method that can be implemented to facilitate decision-making especially in cases where everything is subjective or difficult to quantify. The DeCyDe-4 approach is in line with the trend of public policies to move from a purely conceptual and theoretical view to a more pragmatic approach, based on empirical evidence.

More than 10 years of implementing and improving simple decision support methods in real cases, led to the development of DeCyDe-4, a clear method and a friendly decision support tool, flexible to accommodate different kinds of decision problems when multiple decision alternatives exist. It offers a framework that supports the decision makers and the stakeholders to understand and justify the main issues that are involved in the process of decision-making and the trade-offs between different decision alternatives. At the same time, it gives them the chance to a real participation, i.e. to incorporate their views, evaluations and perspectives in the process.

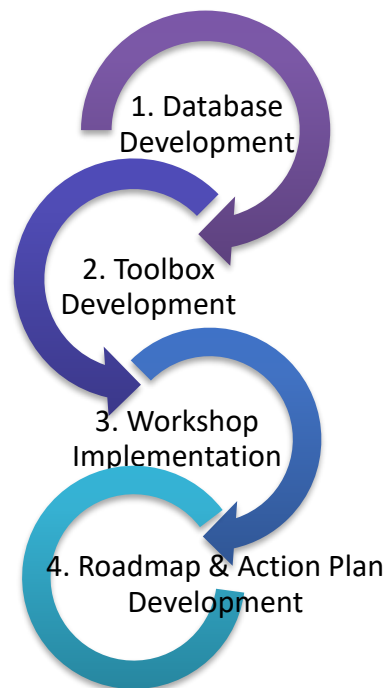
The core DeCyDe-4 method is partly adapted, to develop a site- and case-specific method and accompanying toolbox, to meet the needs of each decision problem at hand. The method has been adapted and successfully implemented to address issues of environmental concern through the development of participatory policy tools and measures. Some notable, recent examples are:

- Development of Policy Tools in Italy, Greece and Cyprus to mitigate and adapt to the risks of sea level rise from climate change and storm surges (SAVEMEDCOASTS project).
- Development of a National Action Plan for addressing marine litter in the Republic of Cyprus (MELTEMI project.)
- Definition of joint monitoring opportunities for marine litter, contaminants and eutrophication within the Marine Strategy Framework Directive (MSFD) for the Eastern Mediterranean and the Black Sea (IRIS Project involving partners from the Mediterranean and the Black Sea). A relevant paper was published in *Marine Policy*, Volume 67, May 2016, Pages 76–82
- Identification of common measures that could be implemented in the Adriatic and the Eastern Mediterranean for the definition of Programmes of Measures for marine litter, contaminants and eutrophication within the framework of the MSFD (ActionMed Project involving partners from the Mediterranean). A relevant paper was published in *Marine Policy*, Volume 84, July 2017, Pages 82–89
- Support of key actors and stakeholders in the evaluation and selection of best practices for the reduction of marine litter in Europe (MARLISCO Project involving 20 partners from across Europe). A relevant paper was published in *Marine Pollution Bulletin*, Volume 88, Issues 1–2, 15 November 2014, Pages 118–128 doi:10.1016/j.marpolbul.2014.09.015.

The highly participatory nature of DeCyDe-4, its ability to deliver high quality, tangible results and its international acceptance and track record resulted in its selection for the development of the Roadmap and Action Plan within the MarLitCy project.

## 2.2. The DeCyDe-4-MarLitCy Method

DeCyDe-4 was adapted to the needs of the MarLitCy project and structured in four self-contained and interrelated phases (Figure 1). The phases are self-contained because they can be used per se, each one giving specific results. They are interrelated since when put together they lead to the final stage, where the decision is supported, based on facts and data not on perception and intuition.



*Figure 1 DeCyDe-4-MarLitCy Method Phases*

### 2.2.1. Phase 1: Database Development

A major problem in decision making is the lack of consistent data or the low quality of existing data. The Database of DeCyDe-4 is built specifically and dedicated for every case that the method is implemented, considering the above-mentioned data problems. This step forms the baseline work, the product of the identification of the problem and the gap analysis of the needs and the parameters that are involved in the specific decision process. It is not uncommon for decision makers to believe something which is not the reality but rather their perception. The Database provides the set of “core” data that are needed to guarantee the unbiased character of the results of the decision process. This set of core data is organized in a way that supports the decision makers to picture the real image of the existing situation and understand the problem through data and numbers.

For the purposes of the MarLitCy project, two databases were constructed:

- **The Stakeholder Database:** Achieving the right mix of stakeholders is a decisive factor in determining the success of a participatory workshop. Therefore, for the purposes of the MarLitCy policy workshop a stakeholder mapping methodology was employed to identify fitting stakeholders in the northern part of Cyprus to be invited to participate at the workshop. Specifically, predefined stakeholder sectors and categories, both public and private were identified. All the relevant stakeholder categories were covered, including policy-makers in the environment and marine environment area, local responsible bodies, civil society and NGOs, business associations and business people, the shipping industry etc.
- **The Existing Legal Framework Database:** This step aimed to provide a database that would allow the identification of existing gaps in the policies that exist in the northern part of Cyprus, which could then be used as the basis for the discussion with stakeholders, during the workshop. Therefore, two distinct databases were compiled (i) a database of all the EU Directives that concern the marine environment and especially marine litter, including those that are indirectly linked to the marine litter issue (such as for example the Packaging and Packaging Waste Directive), and (ii) a database of all the relevant policies in the northern part of Cyprus.

### 2.2.2. Phase 2: Developing the DeCyDe-4-MarLitCy Toolbox

This is the part of the method where each case under examination, is structured and modelled. Phase 2 of DeCyDe-4-MarLitCy consisted of two parts:

#### 2.2.2.1. Phase 2A: Development of potential policy measures

Using the outputs of Phase 1 in combination with the previous experience and expertise of the decision-support expert, several categories of potential policy interventions were identified. Specifically, policy measures that could help address the gaps and needs in the northern part of Cyprus were identified and grouped under general categories, assuming that local legal text development is not enough to address the marine litter problem but a wider strategic policy framework that includes effective consultation structures, has to be developed.

#### 2.2.2.2. Phase 2B: Criteria definition and preparation of tools

In this step, the actual excel-based tools that would be needed for the participatory decision-making process in Phase 3, i.e. the identification of the most important measures for implementation in the northern part of Cyprus, as well as the criteria for assessing the measures, were developed.

### 2.2.3. Phase 3: DeCyDe-4-MarLitCy Workshop Implementation

The purpose of the DeCyDe-4 workshop is to facilitate the participating stakeholders in the ranking of the measures identified in Phase 2. To do so, a structured approach was taken, whereby following the project -and topic- specific introductory presentations, the policy gaps identified were presented to the participating stakeholders, followed by a presentation of the possible measures to fill each gap. The participants then had the opportunity to suggest and discuss additional measures, so as to compile complete sets of measures to address the identified policy gaps. The final step of the workshop involved the evaluation of the measures against the pre-defined criteria using a specific numerical evaluation scale. In this way, the subjectivity was removed from the decision-making process and the measures were evaluated and ranked in an objective and unmanipulated manner.



In general, the measure evaluation/weighting phase is carried out as follows: the measures are organized in matrices, based on Saaty's concept of comparing couples. The number of matrices, i.e. the number of levels that will be incorporated in the decision support method is defined in Phase 2, when the key measure categories and criteria are decided. The matrices are presented in a spreadsheet form and they need to be ready and programmed to have direct results the moment the weight/ importance between a couple of measures is agreed among the participants. Through this step a high level of participation is achieved. By increasing the level of actual participation, and by enhancing conversation among conflicting interests, DeCyDe-4 achieves consensus building among the group of decision actors (decision makers and stakeholders) that are involved in the process. They get into a discussion that eventually leads them to a common perception or at least common understanding.

The output from this part of the workshop was a prioritized list of measures for implementation i.e. a preliminary policy roadmap.

#### 2.2.4. Phase 4: Roadmap and Action Plan Development

Using the outputs from the various steps of the DeCyDe-4-MarLitCy method a Policy Roadmap and relevant Action Plan for bringing the marine environment policies in the northern part of Cyprus closer to those of the EU was developed as in presented Chapter 4.

### 3. Results

This section presents the outputs from the implementation of each step of the DeCyDe-4-MarLitCy method.

#### 3.1. Stakeholder Mapping

A key factor in the successful implementation of participatory workshops is the correct identification of the invited stakeholders. The process participants must include representatives of all those that are affected and can affect the topic at hand. For the issue of environmental policies that relate to marine litter, the participants must represent stakeholders from all levels of society.

A thorough stakeholder mapping exercise was implemented, using the main stakeholder categories developed by the Expert and appearing in Table 1.

*Table 1 Stakeholder categories for the purposes of the MarLitCy participatory workshop*

Main stakeholder category/sector	Specific sub-categories
<b>1</b> Local responsible bodies and/or policy maker	Local
	Turkish Cypriot community
	International
<b>2</b> Coastal and/or marine industry	Commercial fishing
	Port, shipping industries & trade unions
	Aquaculture
	Coastal hotels, bars and restaurants
<b>3</b> Environmental organizations	NGOs, civil society organisations and groups
<b>4</b> Educational sector	Colleges and universities
<b>5</b> Waste management sector	Waste collection and transportation
	Waste separation and recycling
	Sewage treatment
<b>6</b> Designers and manufacturers of products that may become marine litter	Material production companies
	Material conversion companies
	Product/packaging design
<b>7</b> Retailers associations of products that may become marine litter	Associations
<b>8</b> The media	Newspaper
	Radio
	Television
	Online

The MarLitCy partnership, and particularly the lead partner, MASDER, used these stakeholder categories and its knowledge of and contacts in the northern part of Cyprus to identify key individual representatives for each category and sub-category. The stakeholder mapping is not included in this report for GDPR reasons, however, Table 2 presents a breakdown of the number of stakeholders by category and sub-category. A total of 33 stakeholders participated at the DeCyDe-4-MarLitCy workshop. The most represented sectors were environmental organisations, representatives of the local responsible bodies and policy-makers, and coastal and marine industry representatives.

*Table 2 Stakeholder mapping breakdown*

Main stakeholder category/sector	Specific sub-categories	Number of Participants
<b>1</b> Local responsible bodies and/or policy maker	Local	3
	Turkish Cypriot community	5
	International	2
<b>2</b> Coastal and/or marine industry	Commercial fishing	1
	Port, shipping industries & trade unions	3
	Coastal hotels, bars and restaurants	2
<b>3</b> Environmental organizations	NGOs, civil society organisations and groups	12
<b>4</b> Educational sector	Colleges and universities	1
<b>5</b> Waste management sector	Waste separation and recycling	3
<b>6</b> Designers and manufacturers of products that may become marine litter	Material production companies	1
<b>TOTAL No. STAKEHOLDERS</b>		<b>33</b>

### 3.2. Existing Policy Mapping

The Policy Mapping work began with an identification of the EU Directives that are relevant to the marine environment and specifically marine litter. Since the waste management and circular economy related policy of the EU is vast and complex, the policy mapping for the purposes of the workshop, focused on only those policies strictly related to waste management and marine litter (Table 3).

Once this step of the process was completed, the existing policy framework in the northern part of Cyprus was retrieved through the collaboration of the MarLitCy project partners as well as the project’s Advisory Group. The identified policies were then reviewed to determine the extent to which they satisfy the requirements of the relevant EU Directives.

Legal text on the environment in the northern part of Cyprus is very limited. And even the text that is available is still in some cases in draft format, i.e. not officially adopted. This is partly because the relevant ‘department(s)’ is severely understaffed. To address this issue, an EU working group/capacity building

team is in place to facilitate the development and adoption of environmental policies, especially those that relate to waste management.

*Table 3 Comparison between EU Directives and available policies in the northern part of Cyprus*

EU Directive	Requirements satisfied by policies in the northern part of Cyprus?
2018/852- Packaging and Packaging Waste	Yes. By Packaging and Packaging Waste Regulation (Draft 02/11/2018)
2019/904- Single-Use Plastics and Fishing Gear	No. Did not identify a relevant local legal text
2008/56/EC- Marine Strategy Framework Directive	No. Did not identify a relevant local legal text
2019/883- The Port Reception Facilities Directive	No. Did not identify a relevant local legal text
2015/720- Plastic Bags Directive	Yes. By Packaging and Packaging Waste Regulation (Draft 02/11/2018)
2008/98/EC- EU Waste Management local legal text	Partly. Principles and liabilities are included in the 'Environmental legal text' but specific detailed legal text needs to be established

### 3.3. Identified Policy Gaps/Needs

The completion of the baseline study resulted in the identification of four main categories of gaps that could significantly improve the environmental policy framework in the northern part of Cyprus (Table 4).

*Table 4 Gaps/Needs with regards to the environmental policy framework in the northern part of Cyprus*

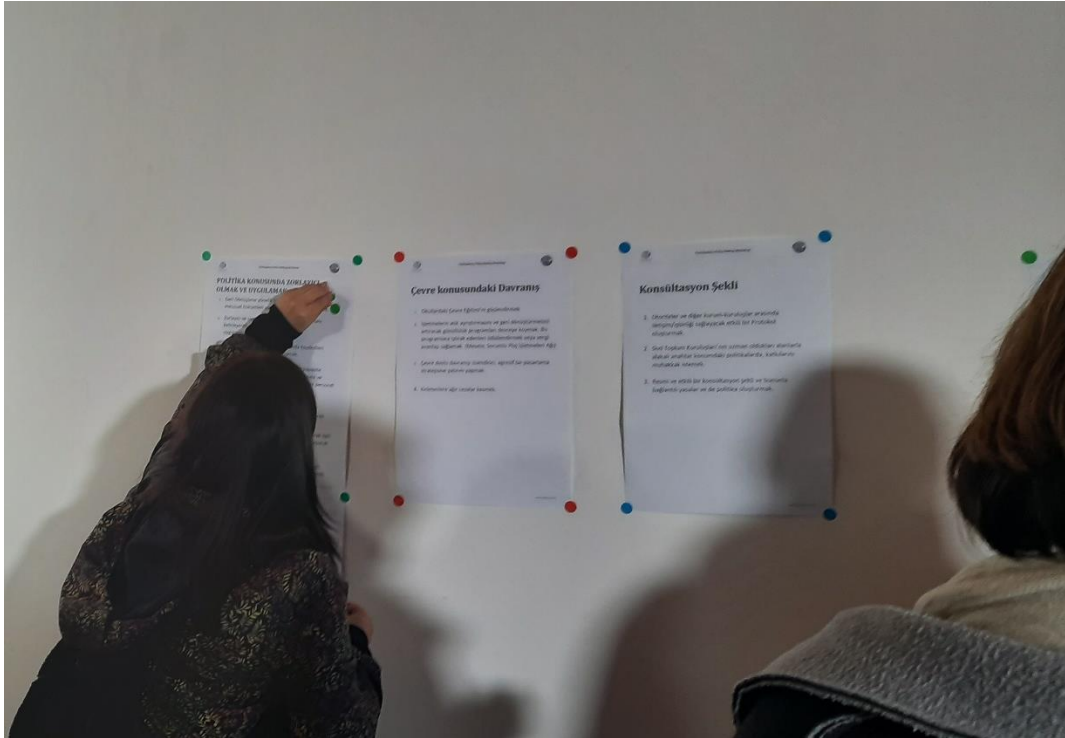
<b>1.</b>	<b>Policy Development</b>	Incomplete set of local legal texts/policies to protect the environment in general, and the marine environment specifically
<b>2.</b>	<b>Policy Implementation and Enforcement</b>	Lack of implementation and enforcement of existing environmental local legal texts and policies
<b>3.</b>	<b>Environmental Behaviour</b>	Lack of environmental culture and environmentally conscious behaviour among public and businesses
<b>4.</b>	<b>Consultation Structure</b>	Lack of collaboration/communication between local responsible bodies and CSOs

### 3.4. Measures to Address the Policy Gaps: A Collective Intelligence Approach

During the workshop, the outputs from the policy mapping exercise and the current status of environmental policy in the northern part of Cyprus, as well as the identified gaps, were presented to the workshop participants, and the participants had the opportunity to discuss and add additional gaps that they considered relevant. The participants felt that the four gap categories of Table 4 above were inclusive.

In the next step of the method, the expert presented lists of suggested measures that she had previously prepared that could help meet each of the broad gap categories. At each step of the process, the participants had the chance to review the measures and propose additional measures that they

considered important. The complete lists of measures were then posted around the room, and participants were asked to vote two measures from each gap category that they considered more important (Photo 1). The voting exercise did not apply for the measures under the Policy Development category, as it was considered equally important for all three policies to be developed.



Photograph 1 Participants casting their votes to their preferred measures for each category

The resulting ranked list of measures for each gap category appears in Table 5. Measures in blue are those that were added during the workshop (they relate only to the Policy Implementation and Enforcement Gap).

Table 5 Ranked measures for addressing each of the policy gaps/needs

Gaps/ Needs	Measures (ranked based on the participants' votes)
<b>Local legal text /Policy Development</b>	
Incomplete set of local legal texts /policies to protect the environment in general, and the marine environment specifically	<ol style="list-style-type: none"> <li>1. Develop local legal text to meet the requirements of the Marine Strategy Framework Directive</li> <li>2. Develop local legal text to meet the requirements of the Port Reception Facilities Directive</li> <li>3. Develop local legal text to meet the requirements of the Single-Use Plastics Directive</li> </ol>
<b>Policy Implementation and Enforcement</b>	
Lack of implementation and enforcement of existing environmental local legal texts and policies	<ol style="list-style-type: none"> <li>1. Develop recycling collection infrastructure based on the provisions of the relevant local legal text.</li> <li>1. Set an implementation and enforcement action plan and publicly commit to its implementation</li> <li>3. Build capacity within relevant central 'government departments' by providing training to key personnel</li> </ol>

	<ol style="list-style-type: none"> <li>4. Increase financial support to local responsible bodies so that personnel dedicated to enforcement/monitoring/implementation can be hired</li> <li>5. Develop and enforce a mini-cruise waste management plan</li> <li>6. Build capacity within the relevant central 'government departments' by hiring additional personnel with a dedicated mandate to implement and enforce local legal texts</li> <li>6. Clarify the waste management responsibilities of local responsible bodies</li> <li>7. Regularly report back on implementation and enforcement progress</li> <li>7. Provide training to key personnel within local responsible bodies on implementation/enforcement of policies</li> <li>7. Develop action plans for accidental pollution management (on land and sea)</li> <li>8. Better definition/redesign of urban planning (zoning)</li> </ol>
<b>Environmental Behaviour</b>	
Lack of environmental culture and environmentally conscious behaviour among public and businesses	<ol style="list-style-type: none"> <li>1. Set-up voluntary schemes for businesses to increase waste separation and recycling. Encourage participation through awards or tax benefits (e.g. Network of Responsible Coastal Businesses).</li> <li>2. Enforce heavy fines to polluters</li> <li>3. Enhance environmental education at schools</li> <li>4. Invest in aggressive marketing for environmentally friendly behaviour</li> </ol>
<b>Consultation Structure</b>	
Lack of collaboration/communication between local responsible bodies and CSOs	<ol style="list-style-type: none"> <li>1. Develop an effective protocol on the collaboration/communication between local responsible bodies and organisations</li> <li>2. Request input by CSOs on key policies that relate to their area of expertise</li> <li>3. Develop an official and effective consultation structure and relevant local legal texts /policy</li> </ol>

### 3.5. Ranking of the Measures: Towards the Development of an Action Plan

The next step required the stakeholders to work in groups, and each group was facilitated by the expert or by someone in their team. Three groups were formed, each working on one of three gap categories: Policy Implementation and Enforcement, Environmental Behaviour, Consultation Structure. Policy Development was excluded from this part of the workshop, since as mentioned earlier, the development of all three policy instruments within that category was considered pertinent to the improvement of the environmental policy framework in the northern part of Cyprus.

The stakeholders were split into groups of equal numbers based on their background and the stakeholder category they represented, aiming to have a rounded and inclusive stakeholder representation at each

group, but also ensuring that stakeholders with specific expertise (e.g. education, civil society etc.) were part of the group that would assess the policy gap of greatest relevance to them.

Each group was tasked with evaluating the first three measures from within its respective category of measures, using the scoring scale in Table 6 and against the following two criteria:

1. Applicability: How applicable is the measure institutionally, technically and financially?
2. Effectiveness: How effective can the measure be to achieve the goal?

*Table 6 DeCyDe-4 Scoring Scale*

<b>Measure X</b>				<b>compared to</b>		<b>Measure Y</b>			
				←			→		
<b>Extremely less...</b>	<b>Strongly less...</b>	<b>Moderately less...</b>	<b>Slightly less...</b>	<b>Equally as...</b>	<b>Slightly more...</b>	<b>Moderately more...</b>	<b>Strongly more...</b>	<b>Extremely more...</b>	
<b>1/9</b>	<b>1/7</b>	<b>1/5</b>	<b>1/3</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>9</b>	

The DeCyDe-4 scoring method has been described earlier, however, a more detailed description is provided here, using the scores for the top three measures of the Policy Implementation and Enforcement category under the Applicability criterion, as they were agreed by the participants in that group.

A 3 X 3 matrix was developed for each criterion on which the top three measures from each category were included (Figure 2). Participants were asked to compare each measure included in the matrix with all other measures in the matrix and assign scores based on the scoring scale (Table 6), moving in a horizontal manner. So, in the case of the matrix in Figure 2, participants began by comparing the measure ‘Develop recycling collection infrastructure’ with itself (cell C11) and the other two measures (cells D11 and E11), against the applicability criterion. When a measure is compared against itself a score of 1 is assigned. This is also the case when a measure is considered to be equally as applicable (in this case) with another measure it is being compared against. In the following couple comparison, the participants agreed that the development of recycling collection infrastructure was extremely less applicable than the setup of an implementation and enforcement action plan, therefore a score of 1/9 was assigned (cell D11). The purple cells define a mirror line in the matrix. Therefore, once the score of 1/9 was assigned to cell D11, the inverse score, i.e. a score of 9, was assigned to the inverse couple (cell C12). The scoring proceeded until all the cells were filled in, at which point the weight and % coefficient columns were automatically calculated and the pie-chart automatically appeared. The participants then moved on to do the same exercise for the effectiveness criterion. With both matrices for the Policy Implementation and Enforcement measures complete, the overall scores of the measures were calculated (Figure 3). It is

important to note that this final calculation assumes that both criteria have an equal weight, with which the participants agreed.

The groups working on the Environmental Behaviour and Consultation Structure measures worked in a similar way, and their results appear in Figure 4 and Figure 5, respectively.

This exercise allowed for meaningful discussion to take place between the participants of each group, and the facilitator’s role was to guide this discussion, ensure that all opinions were heard and then facilitate the participants to come to a score, through consensus.

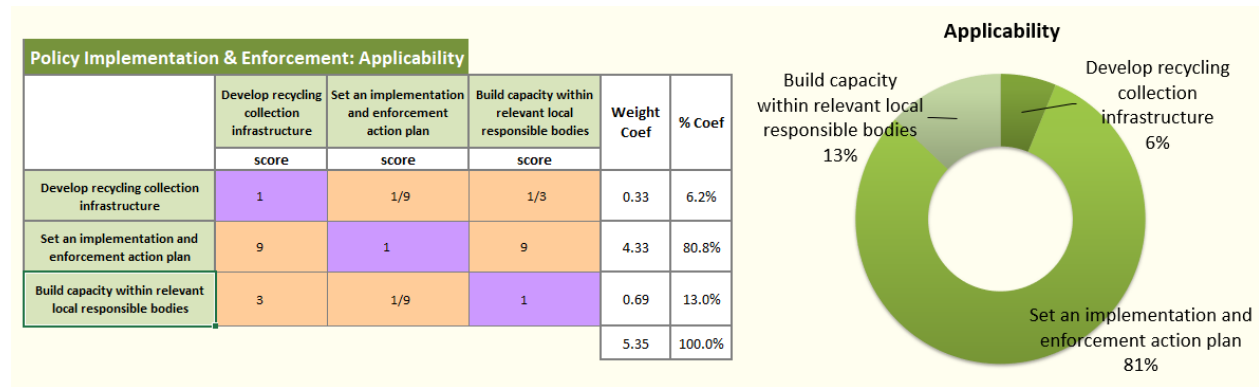


Figure 2 The completed matrix for the Policy Implementation and Enforcement Actions ranked for their applicability

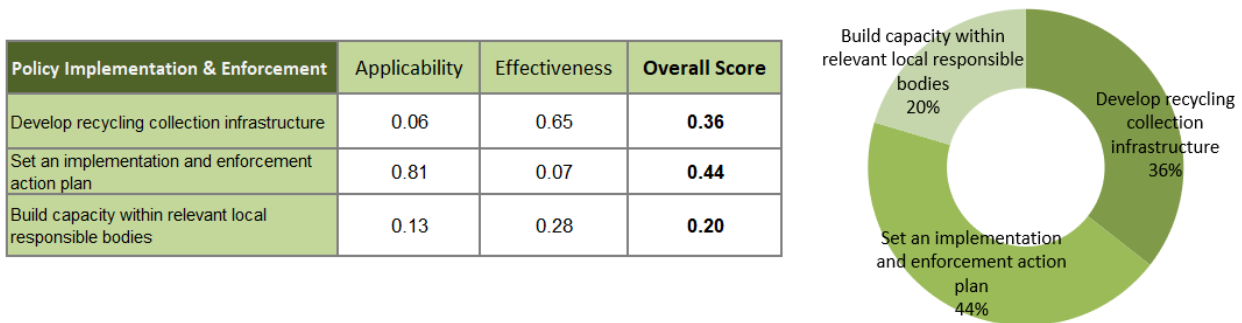


Figure 3 Ranked Actions for Policy Implementation and Enforcement



Environmental Behaviour	Applicability	Effectiveness	Overall Score
Set up voluntary schemes for businesses	0.20	0.07	<b>0.14</b>
Enforce heavy fines to polluters	0.06	0.60	<b>0.33</b>
Enhance environmental education at schools	0.74	0.32	<b>0.53</b>

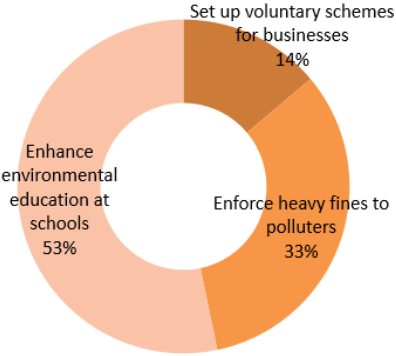


Figure 4 Ranked Actions for Environmental Behaviour

Consultation Structure	Applicability	Effectiveness	Overall Score
Develop collaboration protocol between local bodies and civil society	0.06	0.75	<b>0.41</b>
Request input from CSOs on policies that relate to their area/expertise	0.63	0.06	<b>0.35</b>
Develop effective consultation structure and relevant local legal text	0.30	0.18	<b>0.24</b>

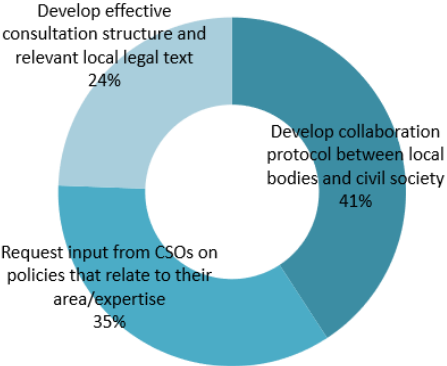


Figure 5 Ranked Actions for Consultation Structure

Following the ranking of the measures, each group provided their ideas/views on how these could be taken from theory to practice. These views have been taken into consideration the development of the Roadmap and the supporting Action Plan.

## 4. Roadmap and Action Plan

The outputs of the DeCyDe-4 process, as described in the previous sections, outline the Roadmap and Action Plan that will help harmonise the environmentally related legal framework, and especially the framework that relates to marine litter, in the northern part of Cyprus to that of the EU. While it is possible that the relevant bodies might need to alter both the Roadmap and the Action Plan to make it fit with their goals, objectives and timeframes, they are, at the very least, a first stepping stone and a guide towards this harmonisation.

The developed Roadmap includes four Pillars, two of which are further broken down into Actions:

- Pillar A: Setting up a marine litter monitoring programme
- Pillar B: Policy Implementation and Enforcement
  - Action B1: Set an implementation and enforcement Action Plan
  - Action B2: Develop recycling collection infrastructure
  - Action B3: Build capacity within the relevant ‘departments’
- Pillar C: Consultation Structures
- Pillar D: Environmental Behaviour
  - Action D1: Enhance environmental behaviour at schools
  - Action D2: Enforce heavy fines to polluters
  - Action D3: Set up voluntary schemes for businesses

Each Pillar/Action is broken down into its own mini Action Plan i.e. a guide for its implementation (Table 7).

For each step of the Action Plan an implementation schedule is suggested, using the following timeframe definitions:

- Short-term: completion within 1 year
- Medium-term: completion within 1-3 years
- Long-term: completion within 3-5 years

*Table 7 Environmental Policy Roadmap and Action Plan for the northern part of Cyprus*

<b>Pillar A: Set up a marine litter monitoring programme</b>		
<i>While this did not come directly from the workshop, it is the author’s opinion that it is a pertinent first step, as it will allow for the monitoring of the effect of all other suggested measures, or any other additional ones that might be taken. Its implementation will also ensure the partial satisfaction of the EU’s Marine Strategy Framework Directive.</i>		
1. Define monitoring sites and monitoring protocols	Marine litter on the beach, seabed and water column should be monitored, in specific areas. Additionally, the impact of marine litter on the marine environment should also be assessed. Review of the EU’s Marine Strategy Framework Directive and supporting	Short-term

	documents by relevant EU Working Groups can provide guidance on the selection of monitoring sites, and the monitoring methods and frequency.	
2. Collaborate with universities, research groups and CSOs for the collection of data	The importance of using a unified protocol for the collection of marine litter data should not be underestimated. Liaison with relevant groups, and review of what is used at the European and international level, will facilitate the selection process. Recognise the work being done by several groups and build upon it.	Short-term
3. Collect and publish data and use it for evaluating the effects of other actions	This should be an ongoing, iterative process.	Long-term
<b>Pillar B: Policy Implementation and Enforcement</b> <i>The Policy Development category of measures is included within this 'Policy Implementation and Enforcement' pillar, and specifically the setup of the relevant Action Plan.</i>		
<b>Action B1: Set an implementation and enforcement Action Plan</b>		
1. Identify the policies that must be implemented as a priority	The work undertaken herein has identified the minimum EU Directives that must inform the development of policies in the northern part of Cyprus so as to address the issue of marine litter.	Short-term
2. Prioritise the policies and set a timeline for their development	The three policies included herein, specifically the development of policies to meet the requirements of the MSFD Directive, the Port Reception Facilities Directive, and the Single-Use Plastics Directive could be prioritised. It is for example more straight forward to transfer the requirements of the Single-Use Plastics Directive to the northern part of Cyprus, rather than the requirements of the MSFD or Port Reception Facilities.	Short-term
3. Identify enforcement and implementation gaps in existing policies	This is an important step as it will ensure that any shortcomings are addressed and not repeated in any new policies that will be developed. It is possible that the Technical Team on Waste has already completed, at least part, of this work.	Short-term
4. Set realistic targets	For the development, implementation and enforcement of the policies.	Short-term
5. Publicly announce the Action Plan	This is an important step as it demonstrates commitment from the responsible bodies to implement the Action Plan and proceed with the development of the new policies, so as to significantly improve the quality of the marine environment.	Short-term
6. Monitor the Action Plan's implementation	To do so, a dedicated committee could be set up, made up of representatives from relevant 'department' but also representatives of the EU's Technical Team on Waste and even representatives of environmental civil society organisations.	Medium-term

<b>Action B2: Develop recycling collection infrastructure</b>		
1. Undertake a waste characterisation study to understand the quantities/type of material and the needs for the infrastructure	This should take into consideration the different sources of waste (i.e. whether they are household, commercial, industrial etc.), any socio-economic differences (e.g. urban vs rural areas), as well as potential seasonal variations.	Short-term
2. Identify recycling solutions and value chains	Before any recycling scheme is implemented, the potential end receivers of waste should be identified. This is particularly important given the nature and political situation of Cyprus.	Short-term
3. Develop business plan and feasibility study	This step is of paramount importance, as it will assess the viability of a future recycling collection scheme. External experts, with experience in designing similar systems, should be sought if capacity is not available internally. The business plan should include measurable targets, milestones, and Key Performance Indicators (KPIs) that can be used to monitor the progress of the recycling system.	Medium-term
4. Secure funding	Of critical importance. A recycling system will require significant start-up investment for collection infrastructure and operational costs. If the correct system is selected and the business plan has been properly developed, then the system should become self-sustained within a certain number of years.	Medium-term
5. Award contracts	Contracts should take into consideration future changes in environmental behaviour (e.g. increased recycling, reduced consumption of single-use products) and/or any planned local legal text that might affect amounts/volume of recyclables produced.	Medium-term
6. Extensive and targeted awareness-raising	At all levels of society (schools, households, commerce, businesses). It should include clear instructions on how to properly separate waste for recycling, the recyclables collected in the system etc. Material should be developed in all languages spoken within the community and be highly visual.	Medium-term
7. Proper monitoring of implementation	This refers to both the monitoring of the contractor(s) undertaking the collection and sale of recyclables, and monitoring of the behaviour of consumers (both households and businesses). Directly relates to the Action on fines for polluters and the creation of an environmental fund (see Action D2)	Long-term
8. Frequent reporting on progress and targets	This is an important step for ensuring the transparency of the system. It might be necessary to undertake additional waste characterisation studies to	Long-term

	identify areas of further work for the communications campaign.	
<b>Action B3: Build capacity within the relevant central 'government departments'</b>		
1. Identify capacity gaps and needs	This can be done through a structured stakeholder engagement approach consisting of questionnaires coupled with personal face-to-face interviews of (i) people working within the relevant 'departments' (both in senior and junior positions), (ii) people that normally interact with these 'departments'. Confidentiality should be ensured.	Short-term
2. Identify best practices	Best practices with regards to adequate capacity but also how capacity can be built should be identified and an applicable mode of adaptation and transfer should be defined.	Short-term
3. Define targets and key performance indicators	Where should capacity building lead and how will progress towards building capacity be measured? These are key questions to be answered before any actual work begins.	Short-term
4. Develop capacity-building scheme and relevant training programme	A mixture of capacity-building techniques could be utilised, including hiring additional staff (permanent or temporary) and provision of training (on e.g. marine litter, best practices for management, implementation of local legal text etc.). The capacity-building needs should be looked at holistically, and take into consideration all the Pillars of the Roadmap.	Medium-term
5. Implement capacity-building training scheme	Expert trainers/collaborators could be sought. Evaluation of training by trainees and also evaluation of changes of trainee performance will help assess the effectiveness of the capacity-building activities.	Medium-term
6. Re-assess and re-evaluate	Capacity-building should be an ongoing process and not a one-off. As such a circular approach should be taken, with regular evaluation periods.	Long-term
<b>Pillar C: Collaboration Structure</b>		
<i>Three distinct actions were included under this pillar: (i) Develop a collaboration Protocol between responsible bodies and civil society, (ii) Request input from CSOs on policies that relate to their expertise, (iii) Develop effective consultation structure and relevant local legal texts. These in effect form their own Action Plan skeleton, and as such one unified Action Plan has been developed.</i>		
1. Undertake mapping and categorization of the active civil society organisations	This is a first important step as it will ensure that all the relevant CSOs are identified and organised within categories (i.e. areas of work/expertise). A database will then be developed, which will need to be regularly monitored and updated. Minimum requirements for CSOs to participate in this database should be published. They should be transparent and clear, and not overly burdensome for the CSOs.	Short-term
2. Identify relevant best practices from abroad	Consultation policies/ local legal texts at EU and other level should be reviewed to define their key attributes	Short-term

	for success, and identify those attributes that could be successfully transferred to the northern part of Cyprus, given the local specificities and structure.	
3. Invite CSOs to a roundtable discussion	With a view to developing a collaboration protocol, CSOs should have a say on how they envision their involvement. What input will be requested of them? In what way? etc. Similarly, the responsible bodies should also explain their expectations from such collaboration, as well as the extent of its limitations.	Short-term
4. Draft a collaboration protocol between local responsible bodies and CSOs	Input for this will come from steps 2 and 3 of this Action Plan.	Medium-term
5. Implement the Protocol and monitor its implementation	Request input from CSOs on upcoming policies etc.	Medium-term
6. Prepare a Public Consultation local legal text	Having tried and tested the consultation structure, and refined it where necessary, this could then be transferred into a formal Public Consultation local legal text (with a view to be in line with relevant EU policies). Naturally, input from CSOs should be sought.	Long-term

#### **Pillar D: Environmental Behaviour**

*A mixture of environmental education, voluntary agreements and penalties have been selected as means of improving environmental behaviour.*

#### **Action D1: Enhance environmental education at schools**

1. Set up a task force	This should be made up of educational bodies and relevant CSOs (environmental and educational)	Short-term
2. Identify potential areas of improvement in formal education	Review educational curricula at different educational levels and in different subjects to identify potential areas of improvement.	Short-term
3. Identify available resources that can be incorporated into the curricula	There is a host of available educational material on the environment, including marine litter. One notable example is the MARLISCO Educational Pack which has been translated in several languages, including Turkish.	Short-term
4. Establish and/or strengthen the environmental education unit within the relevant 'department'	To ensure that there will be a more permanent structure responsible for the continuous improvement of environmental education, a unit should be developed within the relevant 'department' (if such a unit is already in place, it should be strengthened so it can undertake its enhanced role effectively). This relates to the Action on capacity-building (see Action B3)	Short-term
5. Enhance informal environmental education	This could be achieved through liaison with CSOs that work on the marine environment and co-organise events, invite them to visit schools with presentations etc.	Short-term

6. Define an enhancement program and action plan	This concerns the actual application of the identified improvements/enhancements to environmental education.	Medium-term
7. Monitor and evaluate	Through targets and KPIs.	Long-term
<b>Action D2: Enforce heavy fines to polluters</b>		
1. Review of existing and newly formed relevant policies to pinpoint articles on fines	(especially local legal text identified in this report or proposed to be developed in this report)	Short-term for existing policies and longer term for new policies
2. Carry out an assessment of effectiveness of fines based on their values	Do the current fines act as deterrents or are they too small to cause a change in behaviour? Are there appropriate levels of fines (e.g. for individuals, businesses etc.)? Are the fines imposed properly or are local legal text enforcement officers reluctant to punish polluters to the full extent of the local legal text?	Short-term
3. Present suggestions for revised fines and implement the agreed consultation process (Pillar C)		Short-term
4. Make the necessary policy improvements		Medium-term
5. Set up an environmental fund where revenue from fines will be diverted	This fund should utilise the income from the fines for the implementation of environmental projects and/or infrastructure (e.g. support of projects run by CSOs for the protection of the marine environment).	Medium-term
6. Train local legal text enforcement officers	On the provisions of the local legal text and the importance of correct fine imposition.	Medium-term
7. Monitor and evaluate results	Through targets and KPIs.	Long-term
<b>Action D3: Set up voluntary schemes for businesses</b>		
1. Identify suitable schemes	There is a host of proven schemes that can be transferred to the northern part of Cyprus and/or existing schemes that could be supported by the relevant local responsible bodies (e.g. the Responsible Coastal Business Network). There is a great opportunity to collaborate with CSOs already active in this area.	Short-term
2. Implement and monitor the selected schemes	Targets and KPIs should be drafted and used to monitor the success of the scheme (e.g. tonnes of waste diverted from landfill, reduction in single-use plastics etc.)	Short-term
3. Reward and publicise	Set up a competition and or other reward scheme (e.g. tax benefits etc.) for the participating, volunteering businesses and ensure that adequate and fair benefits are given to all types and sizes of	Medium-term

	businesses. Ensuring that the scheme(s), its successes and its participants are highly visible will encourage additional participation.	
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