



CleanSea

Towards a Clean Litter-Free European
Marine Environment through Scientific Evidence
Innovative Tool and Good Governance

Final Report

Fishing for Litter

in the CleanSea Project



Final report

Fishing for Litter in the CleanSea project

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There is an increase in the level of awareness on the impact of marine pollution in general and more specifically among fishermen. After all it is their work environment that gets more and more polluted. In the Netherlands more than 90 crews (comprising over 400 fishermen) are working together in the Fishing for Litter project. The results of this project have proven that the contribution of these fishermen is of the utmost importance. Together, they collect and bring ashore hundreds of tons of marine litter. This decade alone they removed over 2.5 million kg of waste from the seas.

We would like to thank all who contributed to this project. Without our partners' efforts this project could not have been successful. Fighting pollution means cooperation and that is what you all did well.



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Table of contents

1.	Introduction	5
2.	The CleanSea Project	7
3.	Fishing for Litter in the CleanSea Project	8
	3.1 The Ships	8
	3.2 Results	8
4.	Information and education	9
	4.1 The Travelling Exhibition	9
	4.2 The Classroom	10
	4.3 Representation at Markets	10
5.	Next steps	11
	5.1 Policy options	11
	5.2 Green Deals	11

1.0 Introduction

The last three years, KIMO The Netherlands and Belgium participated, together with sixteen other partners, in the CleanSea Project. The CleanSea project is a European funded Framework 7 Research programme addressing the pollution of the seas by marine litter. The project was under the supervision of Dr. H. Leslie of the Institute for Environmental Studies (IVM) at VU University in Amsterdam, The Netherlands. In the CleanSea project the partners used an interdisciplinary approach, to address many different aspects of the marine litter problem. The project's main objectives are the analysis of the composition and distribution of marine litter, the biological and socio-economic impact of marine litter and the best practice solving for marine litter problems and dissemination of the project's findings.

KIMO The Netherlands and Belgium contributed to the project by providing data concerning the presence of macro litter in the North Sea basin. For the collection of these data KIMO cooperated with crews of 10 fishing vessels who participated in the already running Fishing for Litter project. The crews kept thorough records of the geo-location, time and date of the litter they collected in their nets. On shore the litter was further monitored and examined.

Besides these main efforts, KIMO contributed to disseminate the output of the CleanSea project by means of running an awareness program and using its extensive network. This report gives a brief overview of our activities.





2.0 The CleanSea Project

Although the project is still in its final phase and the final reports are being drafted, there are results that can already be shared. The most

common items that end up as marine litter are packaging (bags and beverage containers) and single use items. Larger pieces of litter are a threat to ships by blocking propellers and for marine organisms that get entangled.

However, even more hazardous to the marine environment are the smaller pieces of litter known as micro plastics. When macro litter has been immersed in water for a longer period of time it gets covered by algae and falls apart in smaller particles. These particles are still made up of plastic but are small enough to be ingested by marine life, thus entering the food chain. Already 80% of the animals that have been studied had micro plastics in their bodies. An additional problem is the fact that all kinds of toxic compounds stick to micro plastics and enter the food chain as well.



3.0 Fishing for Litter in the CleanSea Project

The main contribution of KIMO The Netherlands and Belgium to the CleanSea project was the input of data concerning the distribution and amount of macro litter in the North Sea. By understanding the composition of marine litter and its behaviour at sea before falling apart into micro plastics, one might be able to understand

the way to the solution to tackle the problem. For the data collection KIMO collaborated with the crews of 10 fishing vessels of the Fishing for Litter project. Not all of the crews participated to the end of the project but all collected enough data to be of significant use.

3.1 The Ships

From the Plaice group we started with the following ships: LT 60, LT 162, PH 63, PZ 657 and RN 1. The RN 1, PZ 657 and LT 162 have collected most of the data for the CleanSea project. The LT 60 and PH 63 decided not to continue the registration due to the complexity and the amount of time involved.

From Goedereede the GO 22, GO 26 from IJmuiden port and GO 37 from Stellendam port contributed. All of the data was collected outside the 12 mile zone. The GO 22 and GO 26 who have been strong advocates with the Fishing for Litter project, have indicated that they are willing to continue their monitoring even after the CleanSea project. The last two ships are the WR 160 and the FD 281. The latter contributed well in 2014 but could not

continue into 2015 due to other obligations. The WR 160 collected most of the big-bags of the entire project.



3.2 Results

Once back ashore the geo-labelled big-bags with litter were collected by the waste collecting company Bek & Verburg. This company monitored and analysed the collected litter according to OSPAR lists. Since most crews have their own preferred fishing spots that they visit more often, has this created a good overview of waste

distribution in the North Sea in space and time. The data will be plotted on a map which creates an insight in litter hotspots and enables indications of movement of litter over time. This job will be done by the scientific researchers of the IVM VU.

4.0 Information and education

Another part of the contribution of KIMO The Netherlands and Belgium is the dissemination of knowledge through its network and by facilitating educational projects. KIMO provided lectures for its member municipalities and used its international network in Brussels to put CleanSea on the agenda. Furthermore, KIMO is making an ongoing effort with its traveling exhibition and linked to that, The Classroom.

4.1 The Traveling Exhibition

At the start of the CleanSea project KIMO The Netherlands and Belgium started a traveling exhibition. By means of the exhibition, KIMO brings marine litter and its associated effects on the marine ecosystem to the attention of the public at large: from adults to children from all layers of society. For the exhibition KIMO makes use of the CleanSea results and data from the Fishing for Litter project.

One of the showpieces is a (sterilised) big-bag with actual marine litter. Furthermore, there are books and movies on the problem and its possible solutions and it presents simple things people can do themselves to prevent littering.

During the course of the exhibition other themes have been added like: the Green Deal Fisheries For a Clean Sea (in which KIMO advocates Fishing for Litter and the results of CleanSea). In addition the Green Deal Clean Beaches is explained and the impact on the ecosystem by lost ship containers and the amount of litter that flows to sea through our river systems is presented as well.

After the initial start in the KIMO office, the exhibition moved to IJmuiden. In 2014 the exhibition was present in Dutch locations: Eemshaven, Lauwersoog, Vlissingen, Vliedder and Den Helder, after which in 2015 it went to Terneuzen, Vlieland, De Marne, Katwijk and Ouddorp.



4.2 The Classroom

The Classroom is part of the exhibition and focusses on children from the highest classes of local elementary schools, who are taken “on a journey into the sea.” Here they can see what the impact is of marine litter, a real scientist explains them what happens with litter in the marine

ecosystem and they can test it themselves through an experiment.

At the end the children have the opportunity to make a work of art with marine litter, a painting regarding clean seas or a poem. The best of these pieces are added to the exhibition.

4.3 Representation at Markets

Several times a year, especially during summertime KIMO attends different kinds of fisheries markets, fairs and fisheries festivals. These are organised in the fishing municipalities and ports of the Netherlands and Belgium. Because of the efforts KIMO makes for a healthy and clean sea KIMO is often invited by the local organisation to use one of the market booths to provide the public with information.

On these occasions KIMO provides the public with brochures, articles and booklets about the CleanSea project, Fishing for Litter and marine pollution in general. On the booth there are some items on display like a big bag with marine litter and some commonly found items.

For children there are informative leaflets and educational brochures on the subject. Reference cards on marine organisms that can be found on beaches and postcards regarding marine pollution are present as well.



5.0 Next steps

The results of the CleanSea project demand a course of action now the project has finished. On the short term the findings should lead to new policy ideas, measures and plans to tackle the vast problem of marine litter at large. In the long run these actions should contribute to cleaner oceans and seas.

5.1 Policy options

From the CleanSea consortium there are also some ideas regarding policy options to support progress towards a clean sea. These are bundled in a brochure which can be found on the CleanSea webpage <http://www.cleansea-project.eu>.

The most important conclusion is that in the long run society should work towards a more circular economy. Reuse and recycling instead of

production, usage and waste. Governments could e.g. contribute to this by implementing deposit fees on cans and package materials. As result waste can become a valuable commodity. By reducing the amount of litter through reuse there will be less need for producing new plastics from virgin materials.

5.2 Green Deals

In the Netherlands the findings of the CleanSea project as well as the results of Fishing for Litter are embedded in a new policy tool known as the Green Deal Fisheries for a Clean Sea. Within this Green Deal different stakeholders work together towards a better environment. The Green Deal is funded by the government but its implementation is done by means of the cooperation of all participants.

In the Green Deal Fisheries for a Clean Sea, KIMO works together with a number of NGOs, fishermen, port authorities and waste collectors. The principle of Fishing for Litter and best practise ideas from CleanSea are being used in the practical implementation of the Green Deal.

Another Green Deal that KIMO The Netherlands and Belgium is involved in is the Green Deal on Clean Beaches. In this Green Deal multiple NGOs,

municipalities and business owners are involved. By cleaning up marine litter that washes ashore and promoting a good treatment of litter by tourists we prevent that beach litter disappears into the sea again. For more information, please check:

<http://www.cleansea-project.eu/drupal/index.php>
<http://www.kimonderlandbelgie.org/projecten/>



