

ERASMUS +



PLASTIC

POLLUTION

2016

Intro

A big problem which caught our attention, was the plastic trash in the Wadden Sea, threatening the animals living there. We want to solve this problem by informing you about it.

The moment we recognized the problem, was when we came across pictures of animals dying because they got trapped in plastic nets.

So we went on to research further issues caused by the plastic trash. First of all we will come up with some scientific aspects of plastics, which will probably be interesting for you.

Furthermore there will be information about the animals in the sea with some frightening pictures. While searching for information we found out about the "NaBu" an organisation fighting for the German environment.

Also important to us was how the fisherman deal with the rising amount of trash that ends up in their fishing nets. And what happens with the trash and the dead fish after they bring it ashore. The trash that comes ashore is also a problem for the tourism. Because it



strands on the beach and ruins the beautiful atmosphere. Therefore we thought about some possible waste disposal concepts and how it's handled currently.

So we hope you will get to know some things about this big issue for our environment. And that you will try your best to help solving it.

Main Problems and Consequences

The seas are suffering from the pollution everywhere on Earth, which is caused by plastic waste. The mudflats are also affected by that and the consequences are devastating. Annually about 8 Million tons of plastic waste finds their way in the oceans. The marine wildlife gets reduced each year. They get caught up in plastic waste, like nets and choke or confound plastic with their food. However, they can not digest the plastic parts and starve with a full stomach.



Marine pollution: A problem also in Europe states

Plastic waste in oceans is a problem that also affects us here in Europe and Germany. About 600.000m³ plastic waste is located on bottom of the North Sea, although there are regular purges organized by communes and communities. These purges cost them millions of Euros.

The most polluted ocean in Europe is the Mediterranean. More than 250 billion pieces of plastic float through the Mediterranean, just on the upper 15cm layer of the water.

So lange bleibt der Müll im Meer



Animals

It's no big secrets that animals die because of all the plastic waste floating in the ocean.

Not only bigger plastic pieces like bottles or plastic bags – which come through most peoples minds first when they think about plastic pollution – but also the chemicals contained in plastic, like diluents or colourants, can be very harmful to the marine wildlife because of their poisonous effect.

And a main problem about this poisoning is the distribution of harmful substances across the food net, which describes the system of many interconnected food chains. So when a carnivore's prey is venomated, the toxic elements devolve to him with his meal. (Following the food chain to the top in this way, humans can also be concerned by the chemicals in the end.)

These plastic pieces work like traps to the sea dwellers: On the one hand animals can get tangled up in the litter, and on the other hand they can mistake the plastic for food. In the second case the consequences can be asphyxiation or starvation because they lose their ability to eat with all this plastic in their stomachs.

Here in East Frisia especially the domiciled seals, fishes and birds like seagulls or fulmars are concerned by the pollution of the North Sea and the alluvial plastic at the coastline and some small island like the Frisian island Mellum, where about 80% of the flotsam consists of plastic.



46.000 pieces of plastic are swimming on the ocean per square kilometre, and with such a huge amount of waste it's no surprise that you can find plastic in the stomach of 93% of the fulmars.

NABU - Can they stop the pollution?

What is the NABU?

The NABU ('Naturschutzbund' = the nature conservancy association) is an organisation to protect the nature and the animals. Lina Hähnle founded this organisation in 1899 and today it has got about 560.000 members which are organized in 2,000 local groups in every part of Germany.



Together they manage huge nature saving projects and want the people to get informed about what the problems are and what they can do against them.

What do they do against the plastic pollution in the north sea?

On their website they say that they work for a better and consistently protection for the sea and a better and more protective way to use marine resources.

The NABU helps cleaning up the sea and the coast. They attend the world's biggest cleaning day of the 'Ocean Conservancy'. Another project in which they take stake is the project called 'Fishing for Litter'. This project is a cooperation with 120 fishermen from 12 german harbors. They work together to create new ways to remove the fished waste which the fishermen bring with them to the harbours from their 'fishing tours'.



The harbors are at the North Sea and the Baltic Sea and they want to clean and protect seas until 2020.

The NABU itself also started a project called 'Meere ohne Plastik' (engl. 'Seas without Plastic')

What they collect money for: e.g. gloves, garbage gripper and garbage bags to clean up the German coasts.

There are also many meetings where the NABU tells the people about the problems which plastic causes.

What can I do to help?

You can become a '**Sea-Sponsor**', donate money, help cleaning up the coasts or maybe start your own campaign to clean up the coast/sea.

But the one thing we all can do and the thing we should do is to watch how much plastic we use and reduce it.

How you can contribute to the reduction of plastics in the ocean

Have you ever paid attention to your daily waste consumption? Do you take care of your waste sorting?

If you never have thought of things like these or you just didn't take care, then do it now!

There are many ways how you can help to reduce the plastics in the ocean.

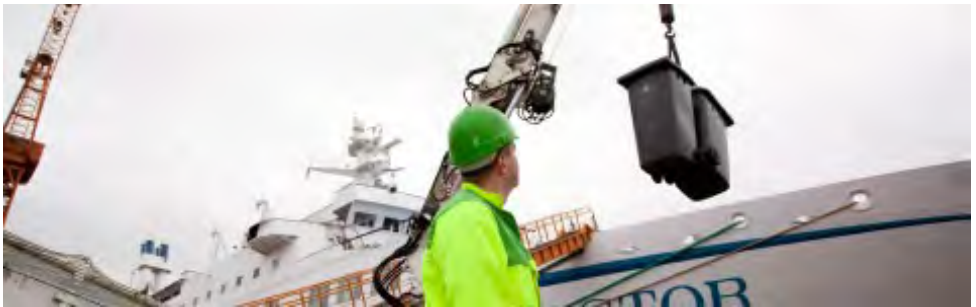
- Don't throw away your waste carelessly -> Throw your waste in the current waste can
- You should buy long-living products
 - plastic-free packagings
 - reuseable bottles
 - use own bags for shopping
- Sort your waste
- There is a project from NABU called 'Fishing for Litter'
 - NABU distributes free industry waste bags to fishers
 - stationing of containers for the free waste disposal
 - fishers get money for the plastics caught
- You can become a supporter of the ocean
- NABU commits itself to the security of the variety of species in North and Baltic Sea
- There are cleaning organisations
- The NABU fights in politics for effective strategies for the waste avoidance

Waste disposal possibilities at fishing ports in East Frisia

In the following sentences we are going to give you some information about the waste disposal possibilities at fishing ports in East Frisia.

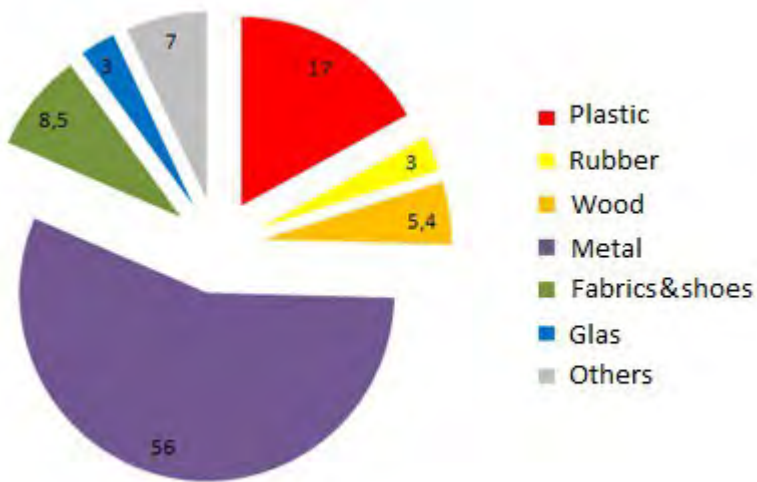
1. What is done to prevent the pollution of the seas by the freight arrears and the trash of the ships?

At every fishing port you can find "Harbour waste disposal facilities" which enable the ship owners to get rid of their trash. So that they don't have to throw it in the seas. In Germany the ship owners are obliged to bring their trash to the "Harbour disposal facilities".



2. What is a disposal plan?

It is an assessment of necessity. It deals with the "Harbour waste disposal facilities" in general and with special facilities needed by the ships pulling into the port. Furthermore, it is a description of the kinds and capacities of the disposal. Moreover, the disposal plan lists various kinds and quantities of trash.



3. What counts as ship trash?

-> All kinds of trash including wastewater and domestic waste – without freight arrears which are produced during the work processes on board.

4. What are freight arrears?

Garbage which occurs in the stowage or in the tanks after the cleaning. Including trash which is produced while loading the ship with goods.

Effects on the tourism

Our regional tourism is effected indirectly by the plastic waste in the world seas. Local tourism is closely connected to all kinds of water activities. Tourists expect clean beaches and perfect water conditions. Plastik waste in the sea negatively effects our touristic attractions and thereby local economy.



In addition, the plastic waste damages the view because after all about 15% of the plastic waste lands at the coasts and noone likes to go on vacation on a dirty beach. The beaches must be kept clean so. Many

associations and organizations have already organized garbage collecting actions where many people of any age can help to collect garbage. This often isn't that simple at all since the garbage is in stone edges, at hardly accessible salt meadows or in dunes. The garbage is often already burried by the sand, too and, if it isn't removed, it stays there for many years, since plastic waste has a durability of over 500 years.



The German Erasmus+ team 2016



