

Reduce Marine Litter

Save the North Sea Project Results

Save the
North Sea



A project to reduce marine litter run by ALTERRA, The Netherlands, FEE Norway, Keep Scotland Beautiful, Keep Sweden Tidy Foundation, KIMO INT., UK, Skagen Uddannelsescenter, Denmark, and the Swedish Environmental Protection Agency. Co-financed by EU Interreg III B. www.savethenortheast.com

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North Sea Marine Litter – Changing Attitudes

The Save the North Sea project's overriding aim has been the reduction of marine litter in the North Sea, but with more than 20 000 tonnes dumped each year into this huge expanse of water, it is a significant form of pollution which still remains unresolved. The main achievement of this project has been raising awareness of this issue and getting thousands of people involved in this important work.

The project has focused on activities involving North Sea fishermen, seamen, leisure craft owners and the offshore industry that use the sea as a place of work or for recreational purposes. Marine litter is a sustainable development issue, encompassing environmental, social and economic

arranged for a member of the Swedish parliament to speak to teachers from Norway, Denmark and Sweden about the issues of marine litter and her work in this area. This led to us working together on a motion to the Swedish parliament last autumn, focusing on the issues caused by marine litter across all European countries bordering the North Sea, and the need for better cooperation between those countries.

We also wrote together with local politicians from the west coast of Sweden and secured an open editorial in the second largest newspaper in Sweden on the fact that North Sea marine litter cannot be tackled country by country, a cross-border approach needs to be developed. In addition,

- A Danish 11-year-old watching, wide-eyed, when being taught how to identify the bar codes on old plastic bottles to see the origin country of marine litter
- Sea cadets sitting together in the first international Marine Awareness Course on the island of Texel in The Netherlands
- The phone calls and emails from members of our international stakeholders group asking how they can help with information dissemination in their organisations/companies and the lively discussions we have with them twice a year when they work in cross-sectoral workgroups to help us with suggestions about how we can work better in our project

"There has been much more interest and support from politicians, the media and the general public than we expected, a fact with which we are delighted."

aspects. Sea mammals, fish and birds eat plastic and local governments spend thousands of Euros each year on clean-up campaigns. In addition, it costs the UK fishing industry thousands of pounds each year in contaminated catches, lost fishing time and damaged equipment.

Litter-strewn beaches cause environmental, social and economic problems for coastal communities throughout the North Sea region. Clean water, one of the United Nations' key objectives, is hard to achieve when old tyres, refrigerators, plastic bottles, syringes, fishing gear and crates, hard hats, and thousands of other marine litter items are both floating on the surface and sinking to the bottom of the North Sea.

Against this background it was important to create opportunities for an open dialogue between all those groups who have a special relationship to the North Sea.

An awareness of the marine litter problem was the first goal. And what better way of achieving this than working with local, regional and national politicians from all over the North Sea region. In Denmark we arranged a coastal tour among fishing towns where we informed local politicians, fishermen and media about the project and how they could participate. In Sweden we

public awareness events have also been organised in Scotland.

There has been much more interest and support from politicians, the media and the general public than we expected, a fact with which we are delighted.

More difficult to measure are the "soft effects" from this project:

- Eco School teachers from Norway, Denmark and Sweden sitting together until late at night discussing how to improve their teaching methods relating to marine environmental issues
- The Danish fishermen who felt that if this project helped their industry achieve better fishing areas with healthy fish that were not contaminated by swimming around dumped oil barrels and painting tins, then it was worth the time they put into participating
- The energy of 17-year-olds from Scotland, Norway and Sweden working in cross-country groups to discuss how they can exchange experiences in the future

It is these kinds of snapshots and the winning over of hearts and minds in small, incremental ways, which we could not have planned for. We are very humbled by them, and very grateful for the energy and enthusiasm that we received from the 2 000 people who have been an integral part of this project. We are also proud of receiving the UN Habitat (United Nations Human Settlements Programme) Award for Good Practice 2004. And we are grateful to EU Interreg IIIB North Sea Programme for co-financing this 5.7 MEuro project, the largest marine litter project ever in the North Sea region.

Even though this project ends on December 31, 2004, the North Sea marine litter situation unfortunately will not. Our project has tried to inspire people with the belief that every person can take a personal responsibility for reducing marine litter, and we believe that many of the activities that we initiated will be carried on by caring people and organisations throughout the North Sea area.

Nancy Holm

Project Leader,
Save the North Sea Project
Keep Sweden Tidy



Aims and Objectives

Marine litter is one of the worst environmental problems in the North Sea region. It is a hazard to animals and vegetation in the sea and has vast economic consequences for the coastal regions as well as the industries using the North Sea as their workplace. Waste that is washed ashore can be dangerous for both people and animals and reduces the aesthetic value of tourist sites.

So what is being done to tackle this problem of marine litter? How has the Save the North Sea project become involved and what is the project actually about?

The Save the North Sea project was established in May 2002 as a result of a growing concern and awareness that marine litter causes financial and environmental problems. It is a collaboration between non-profit organisations, companies, political organisations and government agencies who are concerned about the rising levels of marine litter in the North Sea. The project is co-funded by the EU Interreg IIIB North Sea programme.

The aim of the project is to change attitudes

and behavior towards marine litter among the groups which use the North Sea commercially and for recreational purposes. Through its many activities, the project promotes the fact that we, you and I, can actually do something to solve the problem of marine litter. This goes for seafarers, fishermen, private boat owners, offshore employees and people who spend time at the beach.

Since it began, the Save the North Sea project has been involved in a huge range of activities, including fishermen bringing back litter found in their nets while fishing to shore. Eco-Schools promoting environmental issues to school children, and the Individual Blue Flag, a voluntary code of practice designed to encourage private leisure craft owners to decrease marine litter. The overall aim of the project has been to show that environmental issues are a common concern, and illustrate that marine litter affects each sector, as well as showing what benefits can be gained if all groups work together to make positive changes.

Partners and members of the Save the North Sea International Stakeholders' Reference Group from different countries

have come together to work on new cross-border initiatives for reducing marine litter. This group comprises representatives from the shipping, fishing, offshore and leisure craft sectors as well as marine authorities, NGOs, local, regional and national authorities. The project has made direct contact between users of the North Sea possible.

"The aim of the project is to change attitudes and behavior towards marine litter among the groups which use the North Sea commercially and for recreational purposes."

Unique opportunities to educate and raise awareness of both the economical, environmental, and social effects of marine litter among end-users have been created. It has also provided many opportunities to make companies in different sectors more conscious of the need to stress legal aspects in their policies for environmental and safety management at sea.

Save the North Sea Project members: From left Jan Brataas (FEE Norway), Jens Lundholm Pedersen (Skagen Education Center), Katrin Nilsson Taylor (The Swedish Environmental Protection Agency), Ingvar Bingman (Keep Sweden Tidy), Bengt Åhlund (Keep Sweden Tidy), Gilbert Henriksson (Keep Sweden Tidy), John Mouat (KIMO International), Suzanne Roberts (Keep Scotland Beautiful), Nancy Holm (Keep Sweden Tidy), Elin Svensson (Keep Sweden Tidy), Rick Nickerson (KIMO International), Bo Svärd (KIMO Sweden), Heine Jensen and Leif Thellefsen (Skagen Truck Service). Second row from left: Jan van Franeker, ALTERRA and Poul Sig Vadsholt (KIMO Denmark).



Partners Involved

The Save the North Sea project has seven partners and involves countries which border the North Sea including Belgium, Denmark, Germany, Norway, The Netherlands, Sweden and the UK.

The Keep Sweden Tidy Foundation acts as Lead partner in the Save the North Sea project. The other project partners are:

- **ALTERRA** – Texel, The Netherlands
- **FEE Norway** (Foundation for Environmental Education)
- **Skagen Education Center**, Denmark
- **Keep Scotland Beautiful**, UK
- **The Swedish Environmental Protection Agency**
- **KIMO International** (Local Authorities International Environmental Organisation), UK

Transnationality



The Fulmar is the Save the North Sea project's symbol and represents how all marine mammals, birds and fish are affected by marine litter. This bird flies from country to country and illustrates visually how the problem of marine litter needs to be tackled as a joint effort. Photo: ALTERRA-Franeker

Transnationality. If there's one word that characterises what the Save the North Sea project has been all about, then this is it. But what does it mean?

The North Sea is a macro region and spatial development is an integrated cross-sectoral task. Economic, social and environmental aspects must be aligned with spatial development. Therefore this project integrated cross-sectoral participation among those who use this region on a commercial as well as recreational basis and involved non-governmental environmental organisations in participating countries, private companies, national, regional and local authorities, researchers, teachers and policy makers/influential people. In short, it was "transnational".

The purpose was to create a unified strategy to decrease marine litter in the North Sea region. The sustainable development of coastal communities surrounding

the North Sea depends on a clean marine environment. Industries such as fishing, fish farming, and tourism are negatively affected by marine litter and often contribute to the problem. Marine litter actually diverts more productive efforts to promote sustainable development by using financial

"Marine litter pays no respect to geographical boundaries, it is a problem that must be tackled by countries working together to save the North Sea."

resources that could be better applied locally than to clean-up campaigns. The marine litter situation negatively affects the biodiversity of the North Sea by affecting marine organisms and species. A sustainable development is not possible if one of

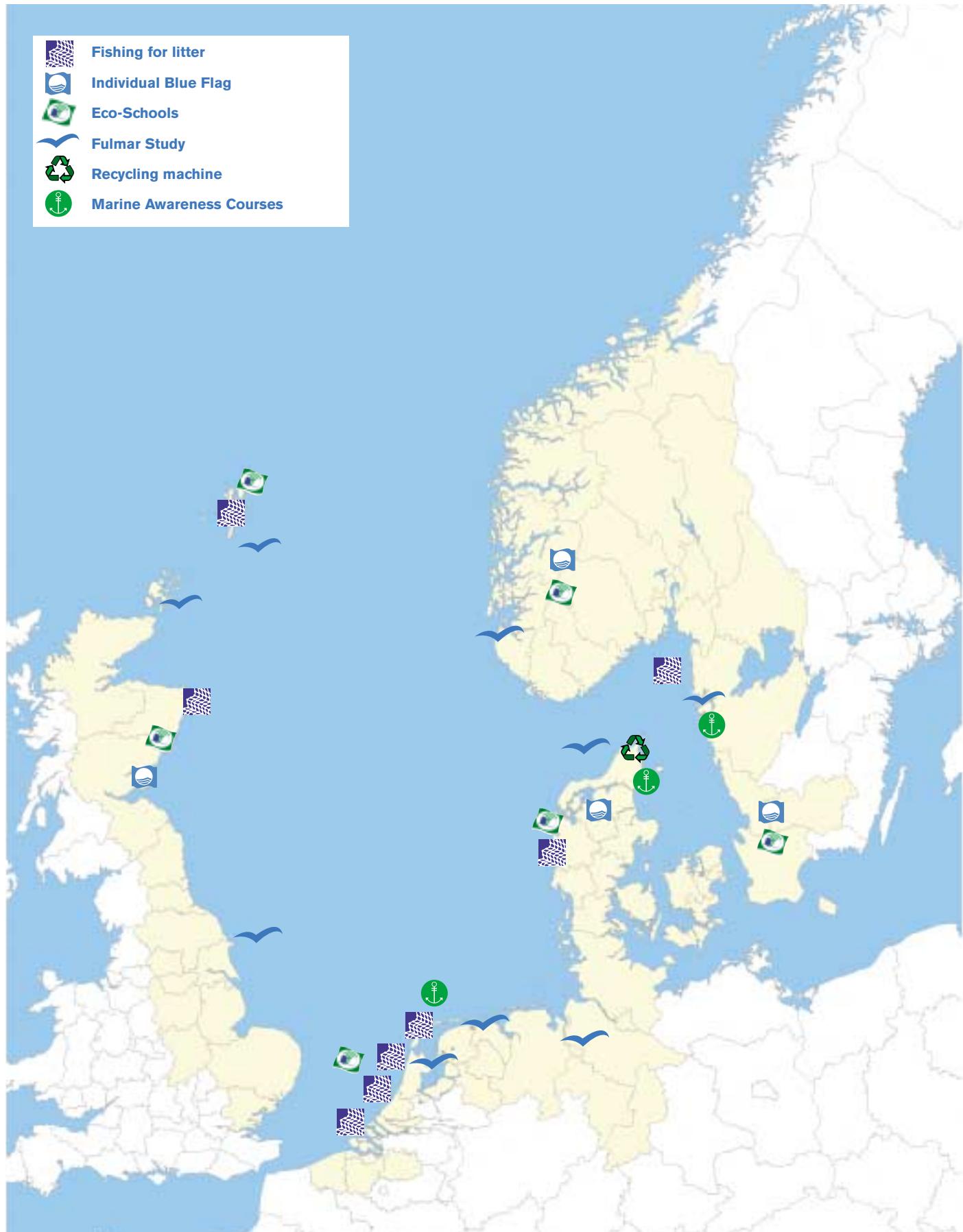
the major causes of environmental pollution, marine litter, is not reduced.

Marine litter pays no respect to geographical boundaries, it is a problem that must be tackled by countries working together to improve the condition of the North Sea.

One of the key highlights has been the work of the stakeholders, whose members have come together to discuss how they can reduce the amounts of marine litter in the sea.

Information-sharing has been key to the success of the project. For example, when Save the North Sea's Danish partner, Skagen Education Center, organised a conference to launch a new recycling machine, he invited the Save the North Sea partner from The Netherlands, researcher Dr Jan van Franeker, to come and talk about his study, which found that 98 % of dead North Sea fulmars had plastic in their stomachs. Without the Save the North Sea project, this sort of cross-country cooperation would not have taken place.

Activities





School children and teachers from Denmark, Norway and Sweden met in Hunnebostrand, Sweden to learn about the effects of marine litter.

Eco-Schools

Sølve Marie T Stenmark, Malakoff school in Moss, Norway, says: "Our students made an exhibition with marine litter found on the beach. The exhibition shows that we treat our sea as if it is a dumping place for rubbish.

"We don't want our coastal places to be polluted, and we want clean and beautiful areas where we can play, swim and sail. I think it is an important task to change the attitudes of students and their parents towards cleaning up after a trip on the sea or the beach."

It was at the UN Conference on Environment & Development (Earth Summit) held in Rio de Janeiro in 1992 that a need to involve young people in finding solutions to environmental and sustainable development challenges at a local level, was identified. This resulted in the development of the Eco-Schools programme in 1994 by the Foundation for Environmental Education (FEE). The United Nations Environment Programme (UNEP) has identified FEE and its programmes as model initiatives for Environmental Education for Sustainable Development. There are currently 31 countries throughout Europe and some 12 000 schools involved in the Eco-School network.

Within the Save the North Sea project, three international conferences have been carried out. In 2002 young people from Sweden, Norway and UK met in Gothenburg, Sweden to discuss how marine litter can be used within The Young Reporters for the Environment Programme. Schoolchildren and teachers from

Scandinavia met in Hunnebostrand, Sweden, in 2003 to learn about the effects of marine litter and participated in workshops. And teachers from Sweden, Norway, Denmark and UK met in Gothenburg, Sweden, in 2004 to discuss how they can work with marine litter as an issue in school.

Suzanne Roberts, coordinator of Keep Scotland Beautiful has been involved with the successful Eco-Schools programme in Scotland: "Linking the Eco-Schools programme to marine litter issues on a social level and working with people in other countries across Europe has had huge benefits for the teachers and pupils involved. Three schools in Scotland along with others from Sweden, Denmark and Norway were able to attend the project's Eco-School conference in 2004. Links have been established and information is now being shared between Eco-Schools throughout Europe."

The Eco-Schools project has been profiled widely through the media which has promoted awareness of the programme and encouraged others to join up.

Suzanne adds: "Pupils from Sandwick Junior High School in Shetland were able to attend the European Youth Eco Parliament in Berlin. Pupils from the same school featured in a UK TV programme called Newsround Extra about Eco-Schools, and in other newspaper coverage."

The end result is that more schools are making concerted efforts to help the environment, looking at improving their environmental performance in the key seven areas – waste minimisation, litter, health and well-being, transport, water, energy and school grounds/biodiversity.

Fishing for Litter

Ewan Anderson, fishermen, Shetland Islands says: "The sea has been used as a dumping ground for a lot of years now and we just felt that that it was time that we do our bit to clean it up. I live on a small island and there is a lot of stuff washed up on the beaches every year. It's been a part of my life that marine litter exists. There is not a day that goes by that you don't see marine litter somewhere."

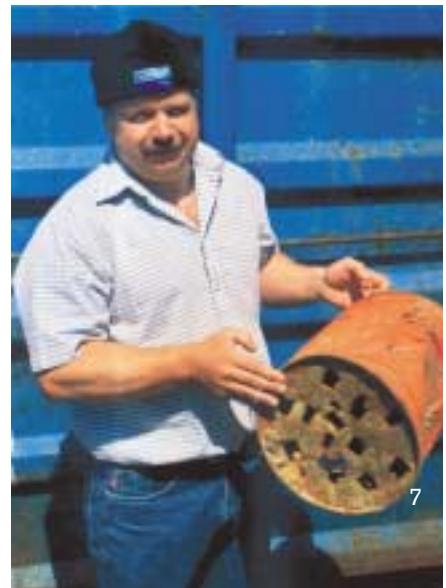
Fishing for Litter is an initiative where fishermen bring ashore debris caught up in their nets. By the end of the project it is estimated that 500 tonnes of marine litter will have been collected. It is expected that 60 boats will have joined the scheme by the end of 2004. Fishermen in Lerwick (Shetland Islands), Hvide Sande (Denmark), Vlissingen (Netherlands), Stellendam (Netherlands), Breskens (Netherlands), Den Helder (Netherlands), Smögen (Sweden) and Peterhead (UK) take part in the initiative.

Coordinated by Save the North Sea partner KIMO International, the scheme helps the environment and benefits all those using the North Sea for either work or pleasure. In addition, the fishing industry will benefit from the initiative through the reduced risks of damages to fishing gear and contamination of catches.

Every week fishermen spend 1-2 hours removing litter from their nets. Using figures from the report "Impacts of Marine

Danish fishing skipper Bo Kirkeby in Hvide Sande, with one of the containers caught in his trawl. "People make holes in the containers so they will sink to the bottom", he says. Bo Kirkeby is one of the participating fishermen in the Fishing for Litter initiative.

Photo: Claus Jacobsen



Debris and Oil" (Hall, 2000, KIMO) one can see that the price per tonne of marine litter is £1 300 in lost time. And that is before adding costs for loss of catches, damage to gear or disposal fees.

The project provides the fishermen with large bags for the litter, and pays their harbour fees. John Mouat, Save the North Sea project coordinator for KIMO International, says: "We would like to encourage governments in the future to pay for the Fishing for Litter initiative, just as they pay for the cleaning of streets and roadsides."

The Chairman of KIMO Denmark and Mayor of the Danish municipality Fanoe, Kjeld Nielsen, comments: "I must emphasize the enthusiastic participation of our fishermen who are collecting the marine litter at sea, when they are more often accused of causing the marine litter problem themselves. The Fishing for Litter initiative has made a great impression on the general public in Denmark, a public impressed that these fishermen are taking responsibility for their actions and helping to solve this problem."

International Marine Awareness Courses

Maggi Wallerbäck, shipping student from Chalmers Lindholmen in Sweden, participated in an Marine Awareness Course in Denmark 2004 comments:

"It's not just about recycling material on board but about sustainable shipping where we have long term plans for how we do things. I now know that I would like to work with environmental issues within shipping. It feels as if I've found what I've been

searching for within my industry."

One of the many organisations involved in improving waste management practices is KIMO International which, in conjunction with its sub-partner, ProSea Foundation, has developed and organised International Marine Awareness Courses for students at maritime colleges and professionals alike.

The aim of the courses is to enhance environmental knowledge and discuss sustainable shipping among maritime college students, seamen, and people working within authorities, private companies and NGOs.

The course curriculum includes lectures, field studies and group discussions. By highlighting international legislation as well as creating a better understanding of marine biology, it is expected that better compliance with the rules will be the result when students leave the course and go back to sea.

Bopp van Dessel, director of ProSea Foundation, responsible for delivering the courses believes that one of the courses' key impacts is that the issue of marine litter is much higher up on the political agenda now. He says: "I believe that to be able to deal with the sea in a responsible way, it is very important to understand the limitations of the sea. The courses educate and train people in all of these maritime environmental issues. The goal is to learn how to use the sea, sustainably."

Five international courses have been carried out within the Save the North Sea project. Three have taken place in Texel, The Netherlands, one in Hirtshals, Denmark and one in Gothenburg, Sweden. Almost 400 participants from all North Sea countries have attended the courses.

Throughout the project, there has been a lot of positive contact with representatives from shipping companies and organisations on a political level, such as Oslo and Paris Commission (OSPAR), International Group of Sustainable Shipping (IGSS) and Commission of North Sea Senior Officials (CONSSO).

Following the success of the Marine Awareness Courses, KIMO International is bringing together marine education experts

Participants of the Marine Awareness Course in Gothenburg, Sweden, investigating the marine organisms living on the river bottom.

at a symposium in 2005 in order to develop a standard curriculum for these courses. John Mouat, Save the North Sea project coordinator for KIMO International says: "Marine awareness has risen considerably through the courses – something which would not have been possible without the project demonstrating that these initiatives are practical solutions to the problem of marine litter."

Individual Blue Flag



David Griffiths on his boat "Deep Trouble" showing off his Individual Blue Flag pennant and wearing his Save the North Sea cap. David Griffiths was the first member in Scotland to sign up for the Individual Blue Flag Campaign.

The Individual Blue Flag Award gives leisure craft users the chance to make a personal commitment to saving the North Sea by agreeing to adhere to a voluntary environmental code of conduct. This includes pledges such as not throwing litter into the sea or along the coast, not releasing poisonous or toxic waste, and protecting animals and plants in the sea.

Since the project start, 1 200 flags have been awarded to leisure craft owners across Denmark, Norway, Sweden and the UK.

The Individual Blue Flag campaign is run by FEE (Foundation for Environmental Education) following on from the internationally-recognised Blue Flag campaign, also run by FEE, that was established to protect the marine environment in harbours, marinas and on beaches. The Individual Blue Flag campaign is a part of the Save the North Sea project to reach and influence leisure craft owners.

David Griffiths was the first boat owner to sign up to the award scheme in Scotland.

"I heard about the Individual Blue Flag through researching litter in the North Sea for my MSc and coming across the Save the North Sea campaign. I think this is a



Above: The Fulmar seabird has the unfortunate habit of eating almost anything that floats on the sea surface, including plastic. This makes the bird a suitable tool for measuring the amount of litter found in the sea. Right: Small plastic pieces that birds mistake for food are often found on beaches and look like small stones. Photo: ALTERRA-Franeker



great scheme as I believe it is essential to have personal involvement because so much rubbish and waste is produced on the boat.

"The Blue Flags for marinas is a good move, but if the marina has 350 berths it is difficult for the individuals to feel associated with the scheme, whereas if it's their own blue flag it will make a big difference."

David continues: "In the past there used to be the feeling that the sea was a giant rubbish bin. This moved on to a general consensus that if something is biodegradable then that can be thrown overboard, while non-biodegradable could not. We're now at the stage, finally, where it's a 'no no' to put anything over the side and having the Individual Blue Flag flying on your boat is a useful reminder of this."

Reference group member Mikal Holt Jensen, coordinator of Blue Flag in Denmark has been impressed with the numbers of boats that have already signed up in many different countries. "Experience now shows that it is important to cooperate across geographical barriers in promoting

the Individual Blue Flag and the Blue Flag concept"

Fulmar Study

No better graphic representation of the problem of North Sea litter can be found than the situation of the fulmar seabird.

Dutch researcher Dr Jan van Franeker, from the ALTERRA institute, heads the research project studying the amounts of plastic found in the stomachs of dead North Sea fulmars. The study is carried out together with volunteers from the Shetland Islands, Orkney Islands, North East England, Belgium, Netherlands, Germany, Denmark, Norway and Sweden.

Martin Heubeck, co-ordinator of the fulmar study, Shetland Islands: "If you think about 0,4 grammes per fulmar on average flying around here. There is about one million fulmars flying around Shetland in the summer. You could do the mathematics to work it out. There is an awful lot of plastic flying around that you don't realize."

The international fulmar study started

through a pilot study of Dutch fulmars, carried out by Dr van Franeker, which took place in the Netherlands from 1982-2001 and found that an incredible 98% of the dead birds had plastic in their stomachs.

Dr van Franeker comments: "One of the reasons for this is that fulmars have the unfortunate habit of eating almost everything they encounter at the surface of the sea, including marine litter such as plastics. These birds are also unique since they don't regurgitate what they have ingested, providing a very good tool for measuring the accumulation of plastic in their stomachs."

The fulmar is the project's symbol and represents how marine mammals, birds and fish are affected by marine litter in the North Sea.

And Dr van Franeker, for one, believes that Save the North Sea project and the fulmar study have made a large impact in raising awareness of the problem of marine litter: "The fulmar has now become a well-known symbol of marine litter throughout Europe and far beyond. The media attention for this litter-eating bird

has done a lot to make the general public and stakeholder organisations aware of marine litter problems.

"It is important to stress that the results of the project are scientifically strong, which is key to gaining excellent publicity and high impact results. One of the best effects of the EU funding for this project is that it has created the possibility to establish a very strong international research group that closely interacts not only on the issue of marine litter but also in wider environmental research."



Jens Lundholm Pedersen from Skagen Education Center is in charge of the pilot project to recycle plastic material. The recycling machine takes all plastic marine litter ranging from old netting and buoys to floats and fish boxes. Photo: Stig Hedström

Recycling

Skagen, where the North Sea, Skagerrak and Kattegat meet, is located at the tip of Jutland and is one of the largest fishing ports in Denmark.

In April 2003, the Skagen Educational Center in Denmark launched a pilot study to explore the possibility of fishermen bringing back their old, used nets for recycling. So-called ghost nets – fishing nets drifting in the water – can form a deadly trap for birds, fish and a whole host of marine mammals. The nets may also get entangled in propellers, costing boat owners money and endangering lives at sea.

With this in mind, the Skagen Educational Center bought a six-tonne

recycling machine able to process vast amounts of plastic materials by chopping used plastic products into small fragments. The recycling machine takes all plastic marine litter ranging from old netting and buoys to floats and fish boxes. It can handle up to 1 400 plastic barrels per day.

The machine will, at the end of 2004, have recycled more than 340 tonnes of plastic material.

Skagen Education Center in Skagen is cooperating with sub-partners Skagen Truck Service and Skagen Harbour to transport the material and recycle it.

"We have achieved a lot in creating a strong international network to put the previously ignored problem of land-based

waste removal issues on the political agenda. People have become aware of the waste tax that harbours and municipalities are obliged to pay. At a conference in Skagen in October 2004 a decision was made to approach the Danish Ministry of the Environment with a plea to abolish this tax," comments Jens Lundholm Pedersen, director of Skagen Education Center.

"But one cannot change attitudes to the problem in just a few years, so the question now is who will keep up the work started by this project, and all the experiences learned, the international contacts made, the interest from the media and the wakening political awareness of the problem of North Sea marine litter."

Did you know? | Marine Litter

- 20 000 tonnes of marine litter are dumped in the North Sea every year. Of that, 70% sinks to the bottom, 15% floats on the surface and 15% is washed up on our coasts.
- Plastic items do not just disappear after being thrown into the sea. A plastic bottle can remain intact for up to 450 years.
- More than one million birds and 100 000 marine mammals and sea turtles die each year throughout the world after either becoming entangled in or eating plastic materials found in the sea.
- North Sea fishermen spend an average 1-2 hours each week cleaning their nets of marine litter.
- Floating litter can result in expensive repairs for boat engines and propellers.
- Beach clean-up campaigns around the North Sea cost taxpayers millions of Euros each year.
- More than 240 000 pieces of litter were picked up on 229 beaches throughout the UK during 2002.
- In 2003 a total of 244 beaches were cleaned and surveyed by volunteers. In total, 279 847 items of litter were removed and recorded.
- The Marine Conservation Society Beachwatch 2003 survey showed that on average there are 2 000 pieces of marine litter per kilometre on the UK's beaches.
- More than 400 000 litter sacks have been collected on the west coast of Sweden during the past 10 years.
- Almost 98 % of dead North Sea fulmars surveyed in the southern region of the North Sea were found to have plastic in their stomachs.
- 70 000 cubic metres of solid waste items end up as marine litter in the North Sea every year.
- The main types of North Sea marine litter are: plastic, polystyrene, rubber, wood, metals, sanitary and sewage-related debris, paper and card-board, cloth, glass and pottery.
- Close to 2 000 people are involved in the Save the North Sea project.
- "The International Convention for the Prevention of Pollution from Ships" (MARPOL 73/78) forbids dumping at sea, and so does the London Convention 1972, the OSPAR Convention 1992, and the most recent EU Port Reception Facility Directive (DIRECTIVE 2000/59/EC, December 2002). Despite this, marine litter still exists.

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Results

Below is a selection of views from the reference group members and partners.

“We have encouraged Eco-Schools in Norway to work with marine litter as a topic. More than 15 Eco-Schools are now working with marine litter projects in Norway.”

Jan Brataas, Executive Director, FEE Norway

“The most outstanding impact is that so many people have become aware of the 20 000 tonnes of marine litter that is yearly dumped in the North Sea. The long-held belief that as soon as litter disappears from the surface of the sea, that the problem is solved, is now replaced by an increased knowledge of the environmental consequences of this behaviour.”

Kjeld Nielsen, KIMO Denmark Chairman and Mayor of the municipality of Fanoe

“We have absolutely seen results. Generally, that the issue of marine litter has become known and received a lot of attention. The project has been profiled on TV, radio and in the newspapers.”

Bertil Arvidsson, Environmental Manager, Swedish Shipowners' Association

Jan-Erik Naess, Secretary General, Royal Norwegian Yacht Club, says:

“The project has encouraged us to focus on what we can do to contribute.”

Dr Jan van Franeker comments on the team work within the project:

“All partners in this project have done very well, with each member working hard at what they are best at, to achieve the overall team goals. The final result is so much bigger than the sum of the individual projects. The cooperation of people working in massively different sectors has lifted all of us to a higher and much more productive level.”

“It is important to remember that before this project there was no “hands on” international focus on marine litter issues. Save the North Sea has created a vehicle for the message to travel on.”

Suzanne Roberts, Keep Scotland Beautiful

“The people working on the project have been very enthusiastic and even inspired a Swedish naval college to create a sustainable shipping club.”

Bopp van Dessel, Director, ProSea Foundation

Making a difference

Raising Public Awareness

Reduction of marine litter and a heightened awareness of the problem were the twin aims of the Save the North Sea on its establishment in May 2002.

Studies have shown that there is often a gap between people's environmental attitudes and their actual behaviour. Changing people's attitudes and behaviours is a difficult task but anecdotal evidence suggests that this project has made a good start in raising public awareness of the issue leading to direct results.

The PR campaign has had a direct influence on local politicians, the general public and target groups. PR has played an important part in raising awareness. For example, a Danish TV filmed not only Save the North Sea's Danish partner's activity but also travelled to The Netherlands to interview the Dutch partner, Dr Jan van Franeker. This resulted in an eight-minute interview on the leading Danish TV news show. Norwegian TV also picked up on the newscast and produced a shorter version

for the Norwegian market. This Norwegian news piece led to several articles in the Norwegian press about the marine litter situation in Norway. In addition, an interpellation from the Norwegian Parliament was presented to the Norwegian government to see what it was doing to reduce marine litter.

In three of the participating countries – Sweden, Denmark and UK – there are local political reference groups connected to the project.

A project film was produced in 2003, which has been useful in terms of giving people a short overview of the project and also for TV companies in getting broadcast quality footage for their news broadcasts. There were media reports on television, radio and in national newspapers when Fishing for Litter was launched in individual countries and news of Dr van Franeker's fulmar study were spread worldwide with newspapers in Australia, New Zealand and India covering the story, reflecting the fact

that marine litter is a problem that does not respect national boundaries.

Heightened public awareness has led to the issue of marine litter being discussed broadly. John Mouat, Save the North Sea project coordinator for KIMO International, comments: "The success of the Save the North Sea project has allowed us to move the subject up on the political agenda."

The Save the North Sea project has been endorsed by both the North Sea Ministerial Conference in Bergen 2002 and the OSPAR/HELCOM Joint Ministerial Meeting in Bremen 2003. It has also been the subject of parliamentary discussions in Sweden and Norway. Members of the steering group have also been guest speakers at national ministries and parliaments, regional EU meetings, international conferences and local political meetings to give updates on the results of the project.

Sverker Evans, from the OSPAR monitoring litter programme says: "From a political point of view, the project has had good impacts, not least on the international arena where it has helped keep the issue of marine litter on the agenda. It is still a topic at the regional meetings for the protection of the seas, for example the Oslo and Paris (OSPAR) conventions."

At the OSPAR Commission in June 2004 KIMO International was able to have some of the Save the North Sea initiatives such as Fishing for Litter, Individual Blue Flag, recycling of fishing nets and the study of fulmars, placed as work products on the Biodiversity Committee work programme.

Ingvar Bingman, Chairman of Save the North Sea Project Steering Group and Board Chairman of the Keep Sweden Tidy Foundation, agrees that political support has been instrumental in raising awareness of the problem. He says: "From the Keep Sweden Tidy Foundation we think it is very valuable that the Swedish Minister of the Environment and this Ministry has supported this work, and we have shown that we can achieve results that are more difficult to reach from the traditional channels. This is both stimulating and flattering for us."

John Mouat and Rick Nickerson from KIMO International together with EU Commissioner Margot Wallström holding the Fishing for Litter flag during the OSPAR Ministerial Meeting 2003 in Bremen, Germany.



Dr Jan van Franeker believes that the Save the North Sea project will have long-term effects. "On the political scene, the project has strongly contributed to the fulmar becoming a formal element of the system of Ecological Quality Objectives (EcoQOs) for the North Sea and the wider northeast Atlantic (OSPAR area). Implementation of the fulmar-Litter-EcoQO will have a long lasting significant impact because it defines measurable political targets for improved environmental conditions."

Back in the UK, Suzanne Roberts from Keep Scotland Beautiful believes the increase in public awareness of North Sea litter engendered by the campaign has opened doors in the field of marine conservation. "Save the North Sea combined with pressure from the Marine Conservation Society and other local organisations have assisted in raising the profile of marine litter. This helped drive the need for a debate in the Scottish

Parliament in early 2004, again, leading to a number of issues being raised."

"Members of a community group in Kinghorn, in Fife, Scotland, who have cleaned their beach for a couple of years now, have been able to link into both a

"From a political point of view, the project has had good impacts, not least on the international arena where it has helped keep the issue of marine litter on the agenda."

national and international project – showing that people are working hard to tackle marine litter all over Europe. It has given the local community a great deal of confidence hearing about all the work going on in other countries."

Karen Storrier, Coastal Litter Campaign project officer at the Forth Estuary Forum, UK, is involved in the same project and echoes this view. "One of my volunteers at Kinghorn, Fife is highly motivated and was always keen to find out more. When she heard of the work of the Save the North Sea project, she informed the local primary school and as a result they have now adopted a stretch of beach as part of the Marine Conservation Society's Adopt-a-Beach programme and have also registered as an Eco-School.

"I would say that the main impact of the Save the North Sea project has been to highlight to the general public the international problems of marine and coastal litter – wildlife impacts were of particular interest in the Firth of Forth catchment area. My volunteers were amazed to hear how organisations were working together locally, nationally and internationally to try to tackle the problem."

Market Research Study

Market research surveys were conducted between 2002 and 2004 in order to establish current attitudes and behavior towards litter as well as understanding the underlying causes to why the problem persists despite international regulations.

Its aim was to establish how much litter the people interviewed see when at sea, what kind it is, what they consider to be the reason behind littering, as well as how it affects themselves and others. The results have provided the project with information on possible differences between the target groups and countries as well as a basis for future campaigns.

The research entailed almost 3 000 interviews with representatives from the fishing, shipping and offshore industry, as well as leisure craft owners in the North Sea region.

The questions focused on the following:

- What are people's reasons for littering?
- What can be done to stop the littering?
- What is hindering solving the marine litter situation?
- How much damage is caused by littering?

Findings revealed that the main reason for littering is based on laziness, rather than practical issues. The greatest hindrance

was shown to be the lack of concern for a joint responsibility for the region as well as non-awareness.



Photo: ALTERRA-Franeker



Reference Group

The Save the North Sea project has carried out a wide range of activities to change attitudes and behaviour towards marine litter. This cross-sectoral integration was made possible by meeting twice a year in the International Reference Stakeholders' Group, and by identifying together the best channels to disseminate information to these stakeholders' organisations and members.

Each member of the reference group has helped support the project with know-how on their specific industry/group as well as by opening up information channels

within their organisations. These channels have been used by the Save the North Sea project to spread information on marine litter to the individuals that are active in the North Sea.

Katrin Nilsson Taylor, information officer of the Swedish Environmental Protection Agency comments on the work of the reference group: "The project's strategy of involving several key focus groups has been the instrument used for reaching the target groups. I think the project has implemented an extremely successful working model."

"The project, with the many organisa-

tions involved and the involvement and support from the international reference group, has offered direct contact with and between users of the North Sea. Unique opportunities to educate and raise awareness of both the environmental and legal aspects of marine litter amongst end-users like fishermen and sea officers have been created. It has also provided an opportunity to make companies in the different sectors more conscious of the need to stress legal aspects in their policies for environmental and safety management at sea."

The International Reference Stakeholders' Group comprises the following members

Blue Flag International
 Danish Fishermen's Association
 Danish Shipowners' Association
 Green Guide/Skagen Environmental Board
 Keep Holland Tidy Foundation
 Maritime and Coastguard Agency, UK
 National Board of Fisheries, Sweden
 Netherlands Oil & Gas Exploration & Production Association (NOGEPA)

Norwegian Oil Industry Association, OLF
 Norwegian Shipowners' Association
 OKQ8, Sweden
 OSPAR Monitoring Litter, Swedish Environmental Protection Agency, Sweden
 Preem Petroleum AB, Sweden
 Royal Association of Netherlands' Shipowners
 Royal Norwegian Boating Federation
 Royal Norwegian Yacht Club

Shell U.K. Exploration and Production
 Shetland Fishermen's Association
 Swedish Fishermen's Association
 Swedish Maritime Administration
 Swedish Shipowners' Association
 The Norwegian Fishermen's Association
 The Swedish Boatowners' Association
 Wallenius Wilhelmsen Lines, Sweden/Norway



Fishing

Hansen Black, Executive Director, Shetland Fishermen's Association, comments on the work achieved in the reference group: "It has been useful to meet with everyone in the project, in particular to hear the problems and perceptions of the North Sea from other countries."

Bertil Adolfsson, Chairman of the Swedish West Coast Fishermen's Association adds: "I myself was not that involved in environmental issues before, but now I am definitely involved and that is a concrete result of this project."



Leisure boat organisations

Jan-Erik Naess, Secretary General of the Royal Norwegian Yacht Club praises another dimension of the project: "The project has encouraged us to focus on what we can do to contribute, and has opened up a dialogue with other organisations."

Shipping

Lena Blomqvist, Vice President Environment, Wallenius Wilhelmsen Lines, believes that the work carried out with schools has been particularly beneficial, as children are the key to changing behaviour and attitudes. "So much good work has taken place in so many ways – I have myself used the results of the project activities to emphasize the message to my organisation."

Bertil Arvidsson, Environmental Manager from the Swedish Shipowners' Association gives the shipping industry viewpoint: "I have noticed that some of our shipping companies are now actively involved and bring up the issue at internal company meetings and other events and channels."



Offshore

Josh Harrop, environmental adviser, NOGEPA/Shell, comments: "I would like to stress that the project was innovative, effective and had great breadth of scope and good organisation."

ALTERRA-Franeker



The Future





Plastic materials, marine debris, bottles left on beaches all affect the fishing industry, leisure craft sector and coastal communities. Repairs to damaged propellers on vessels caused by marine litter, lost income from tourists who avoid dirty and cluttered beaches, seabirds that become sick because of ingesting plastic bags and pellets, all these and more have an economic and social effect on this thriving region.

It is important to increase understanding of the underlying problems each stakeholder sector (oil, shipping, fishing, recreational) has with marine litter. It is also very important to take a transnational approach to minimise conflicting interests and emphasize a joint strategy among these key groups to reduce marine litter. Transnational problems must be addressed in transnational ways, and the EU Interreg IIIB North Sea programme has provided the economic means to undertake this work.

Some parts of the Save the North Sea project will continue. There will be an additional International Reference Stakeholders' Group meeting in 2005 and marine awareness courses will continue as a result of financial support from a Dutch national authority, members of the reference group and local municipalities in the region. In addition, The Fishing for Litter scheme will continue in almost all countries due to financial support from local municipalities in the region. Marine litter education will continue in Eco-Schools and the Individual Blue Flag is a part of FEE's Blue Flag Scheme. This shows the commitment of these target group sectors and municipalities to help solve the marine litter issue. Many private companies, for example Microsoft in Norway and Sweden supported the project.

The Save the North Sea project logo is a EU-registered trademark and will live on and if you see it you will know that one or more of the Save the North Sea partners will be involved in an activity focused on reducing marine litter in the North Sea.

The Save the North Sea project needed EU Interreg IIIB North Sea Programme financing to start this work, but the results of the project have shown there is a willingness to continue the work to solve the problem of marine litter across the North Sea region.

