











FOCUS ON: ABANDONED, LOST OR DISCARDED FISHING GEAR

DORTRAITS OF EVE GADD AND GEORGES

FISH&CLICK CITED AS EXAMPLE OF CITIZEN SCIENCE AT FRENCH PRESIDENCY CONFERENCE

8 VISITS TO INDIGO PARTNERS









NaturePlast









IN THE NEWS

INdIGO survey: the majority of fishermen would be ready to use biodegradable fishing gear

More than 200 French and English fishermen participated in the survey conducted by the INdIGO project between December 2020 and August 2021. The analysis of the results shows that the majority of the participants (73%) would like to use biodegradable fishing gear in the coming months.

For the fishermen who participated in the survey, the performance criteria are essential: the biodegradable net must be as effective as the traditional net, i.e. fishing, resistant and strong.

The results of the survey also show that the promotion of the catch and the fishing activity to the customers and the general public could encourage the intention to use the net (for example, by proposing a label).



Granville, september 2021 © Laurence Hegron Macé - Smel

For more than half of the fishermen interviewed, it is important that the family and customers approve their choice of fishing gear. It also seems that environmental arguments are useful to interest fishermen in biodegradable fishing gear.



Fishermen have also expressed a wish to try out the new biodegradable fishing gear and some are already interested in the tests that will take place in the coming months within the framework of INdIGO.

Finally, an additional cost of 1 to 10% for the purchase of the biodegradable fishing gear is possible for half of the fishermen interviewed. However, the majority declare that financial support is essential to start using biodegradable fishing gear.

FREQUENTLY ASKED QUESTION

Abandoned, lost or discarded fishing gear: what does it mean?

Abandoned, lost or discarded fishing gear is a major threat to the oceans. The Food and Agriculture Organisation of the United Nations (FAO) estimates that it accounts for 10% of marine litter. Although it is difficult to obtain precise data on the numbers, it is certain that it has increased significantly in recent decades¹. For example, in the INdIGO survey conducted in early 2021, nearly 90% of the 150 French and British fishermen questioned said they came across abandoned fishing gear at sea.

What are the causes?

Abandoned, lost or discarded fishing gear enters the ocean for a variety of reasons and these can vary between areas. The main cause of loss is environmentally related and concerns gear that is carried away by storms or bad weather. Other factors such as currents or the state of the sea bed can also have an impact. Loss can also result from conflicts between different types of fishing gear (e.g. loss of passive nets due to trawls).



Waste collection © Juliette Lasserre - Fish&Click- Ifremer

Sometimes ports do not have appropriate collection facilities for vessels to dispose of their endof-life gear which means some fishermen may discard their end of life or damaged fishing gear. Finally, fishing gear can also be deliberately discarded during illegal fishing activities or lost as a result of accidents or human error.

In the INdIGO survey, 42% of the fishermen interviewed agreed that bad weather conditions cause net losses, followed by fishermen who agreed that lack of awareness and training causes gear losses. An almost equal percentage of respondents agreed that inadequate collection facilities (e.g. insufficient number of bins) (32%) and deliberate discarding (31%) were factors causing gear loss.

FREQUENTLY ASKED QUESTION

Damaging consequences



The consequences of lost gear are also numerous and varied. The best known is ghost fishing, which results in the capture and death of fish and other species such as dolphins, seals or turtles, which can sometimes be threatened with extinction. Marine species also face the risk of ingestion of gear components. Fragmentation of gear causes toxins and microplastics to be dispersed and transferred into the marine food chain. Finally, they can also litter beaches and become dangerous waste for birds or other coastal species and present a danger to the health and safety of people who frequent the coastline.

¹ In 2009, the FAO and the United Nations Environment Programme (UNEP) estimated that one tenth of the waste in the oceans is made up of ghost fishing gear and that 640,000 tonnes of fishing gear are lost or abandoned in the oceans each year.

Source :

Our oceans are haunted - How "ghost fishing" is devastating our marine environments: <u>fao.org/fao-stories/article/</u><u>en/c/1099596/</u>

For more information : Highest risk abandoned, lost and discarded fishing gear : <u>https://www.nature.com/articles/s41598-</u> 021-86123-3

BUT ALSO

Fish&Click cited as example of citizen science at French Presidency conference



Organised in the framework of the French Presidency of the Council of the European Union, the conference on civic engagement in European missions was held on 21 March 2022 in Paris. The event brought together ministers, experts and stakeholders of various kinds. It was also open to the general public.

Thus, stakeholders, citizens and decision-makers were able to brainstorm and debate together on the concrete solutions envisaged to meet the challenges posed by adaptation to climate change, the fight against cancer, carbon-neutral cities, soil health and the protection of the oceans. This last mission, entitled «Health of the oceans, seas, coastal and inland waters», proposes several priority areas, including decarbonisation of waters, carbon-neutral fisheries and reducing ocean pollution. The aim is to prevent and eliminate pollution by reducing plastic waste at sea by at least 50% by 2030.

Fish&Click was presented as an example of citizen science. Indeed, this initiative relies exclusively on the participation of citizens and its success demonstrates that their involvement in providing data on a large geographical and temporal scale is possible! Connecting, mobilising and empowering European citizens and local communities to take action for the restoration of oceans and waters in a more inclusive way is becoming a real means to achieve scientific research goals.

Fore more information: https://fishandclick.ifremer.fr/



PORTRAITS

Eve Gadd, Research Assistant at the University of Plymouth



Eve joined the INdiGO Project in February 2022 working at the University of Plymouth.

After studying Human Geography at Cardiff then a masters in Global Sustainability Solutions at Exeter with a year off in between sailing, kayaking and working in a local boat yard, Eve loves her new role which helps tackle plastic pollution in our seas !

Having studied sustainable 'solutions', systems thinking and sustainable transition theories, she is keen to be getting stuck in with how to best disseminate the research INdiGO is presenting and engaging with stakeholders and the general public to develop and disseminate the best practices in the industry. Working collaboratively to get effective data collection to help understand the circular system for fishing gear and all its potentials.

Georges, dog involved in the INdIGO project



My name is Georges and I am the dog of the managers of the company Filt 1860 which is located in Mondeville, near Caen, in Normandy. Last December, I had the chance to meet the partners of the INdIGO project who came for a meeting and visited the company. Filt is a net manufacturer that makes both shopping nets and hammocks. In INdIGO, its role is to manufacture the multifilament catinage net. This is a net used for the cultivation of mussels, which holds them in place during their growth.

The biodegradable prototype net must be able to replace the current nets without changing the practices of the mussel farmers. The mechanical strength of the net must be maintained for a minimum of 6 months and then it must biodegrade. As an inhabitant of this beautiful planet, I am very happy to be able to participate in this ambitious project in the field of environmental protection, and to be part of such a nice partnership! Wow!

Visits to INdIGO partners

The INdIGO partners have met several times in recent months. In September 2021, they visited Smel, an experimental centre located in Blanville that supports fisheries and marine farming professionals in Normandy and which is involved in several INdIGO activities such as the fishermen's survey and the good practice guide for the collection and recycling of used fishing gear.



Meeting and visit to Smel in Blainville-sur-mer and discovery of mussel farming on the foreshore (©INdIGO)

In December 2021, the partners travelled to Caen for a project meeting held at the premises of Filt, a partner specialising in the manufacture of nets. On this occasion, they also visited the facilities of partner NaturePlast, a specialist in bioplastics.



Visit to Filt 1860, a net manufacturer in Caen (©INdIGO)



EN BREF

In March, the partnership met again in Lorient and visited ComposiTIC and IRMA, as well as Ifremer to see the fishing gear test tank. Fishermen from Brittany, Normandy and the Mediterranean, in collaboration with the Parc des Calanques, were involved in these visits, providing their expertise and expressing their needs in terms of innovation in the field of fishing gear.



Visit to ComposiTIC and IRMA (©INdIGO)







Press review

The Conversation – 09/02/2022 – <u>Un filet de pêche biodégradable pour limiter la pollution plastique</u> Milan Polymer days blog - 25/01/022 - <u>Limiting plastic pollution by developing biodegradable fishing</u> <u>gear for the marine environment</u>

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Newsletter 5 - April 2022









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