

MODULE 4: USE OF DISCARD FISHERIES TO PRODUCE PET FOOD

CASE STUDY and WORK SHEET

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CASE STUDY 1: DiscardLess Project

Introduction

“Strategies for the gradual elimination of discards in European fisheries”- *DiscardLess* project is a Horizon 2020 – the Framework Programme for Research and Innovation (2014-2020) project funded by EC (Total Budget is Total Budget: €5,551,000.00).

Coordinator is National Institute of Aquatic Resources, Technical University of Denmark (DTU Aqua), Denmark. The project consortium includes 31 partners from 12 countries

DiscardLess helps provide the knowledge, tools and technologies as well as the involvement of the stakeholders to achieve the gradual elimination of discarding. These will be integrated into Discard Mitigation Strategies (DMS) proposing cost-effective solutions at all stages of the seafood supply chain.

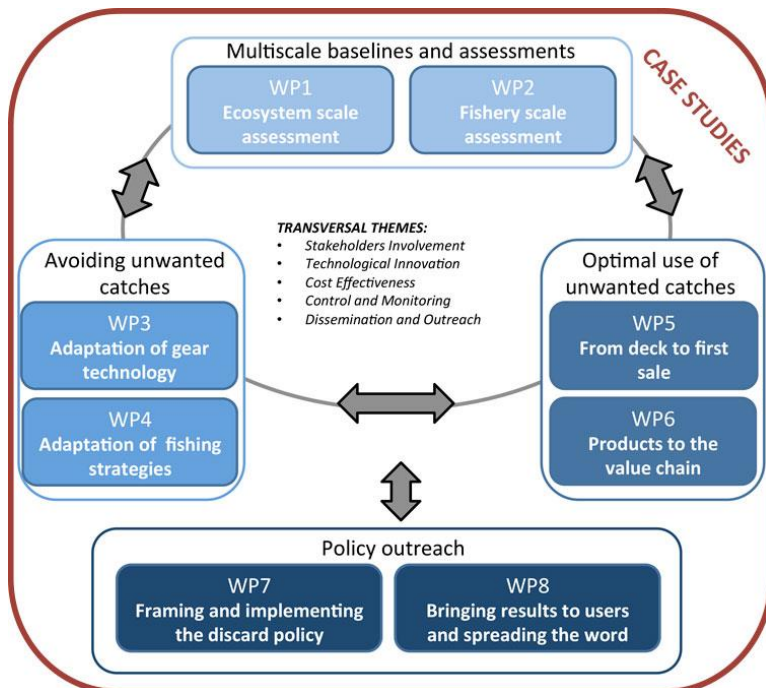
The first focus is on preventing the unwanted catches from ever being caught. The second focus is on making best use of the unavoidable unwanted catch.

DiscardLess evaluates the impacts of discarding on the marine environment, on the economy, and across the wider society. We evaluate these impacts before, during and after the implementation of the landing obligation, allowing comparison between intentions and outcomes.

Description

DiscardLess is designed to take on the simultaneous challenges and opportunities of studying and implementing a radical new management approach. Placing DiscardLess in its policy context will bring it to the forefront of documenting the history of a fundamental paradigm shift in European fisheries management.

Significant progress beyond the state-of-the-art will be achieved in all WPs, while it is recognized that the science base on discarding will continue to expand rapidly.



WP1 will advance our understanding of the impact of the landing obligation on key fish stocks and marine ecosystems. We will review the existing knowledge on current discarding practices, available quantitative discard data, and their use in the current fish stock evaluation and management for all the case studies fisheries.

Lead: IFREMER, France

WP2 will play a central role in filling knowledge gaps and monitoring actual changes in economic profitability and in stakeholders' attitudes and perceptions. Since incentives to discard usually do not coincide with society's management goals, analyses are needed both on the socio-economic as well on the business economic level.

Lead: IFRO-University of Copenhagen, Denmark

WP3 will review the best programmes to assess the most successful and to identify best practices. Providing fishers with an economic model in to which they can enter their own specific details/data will permit them to assess both the selective and economic impact of using more selective gears.

Lead: Marine Scotland Science, UK

WP4 will formalise fishers' knowledge into the understanding and modelling of where and when to fish, and make best use of most recent tools and models for the fine-scale mapping of individual behaviour to fully understanding the changes created by the landing obligation.

Lead: Marine Institute, Ireland

WP5 will identify the most relevant options for on-board handling and storing, taking into account

different vessel types and sizes, gears, species, geographical areas. Solutions for on-board handling including sorting, bleeding, cleaning, chilling, pre-processing, storing will be suggested, including where applicable the transfer of useful technology and knowledge between sectors, facilitated by the involvement of fishers and technology providers.

Lead: Matís ltd. - Icelandic Food and Biotech, Iceland

WP6 will investigate the logistics and processing requirements for unloading, classification, pre-treatment and storage at port. An important innovative tool in DiscardLess will be the development of an automatic system for the quantification and classification of catches landed in bulk, including bycatch.

Lead: AZTI-Tecnalia, Spain

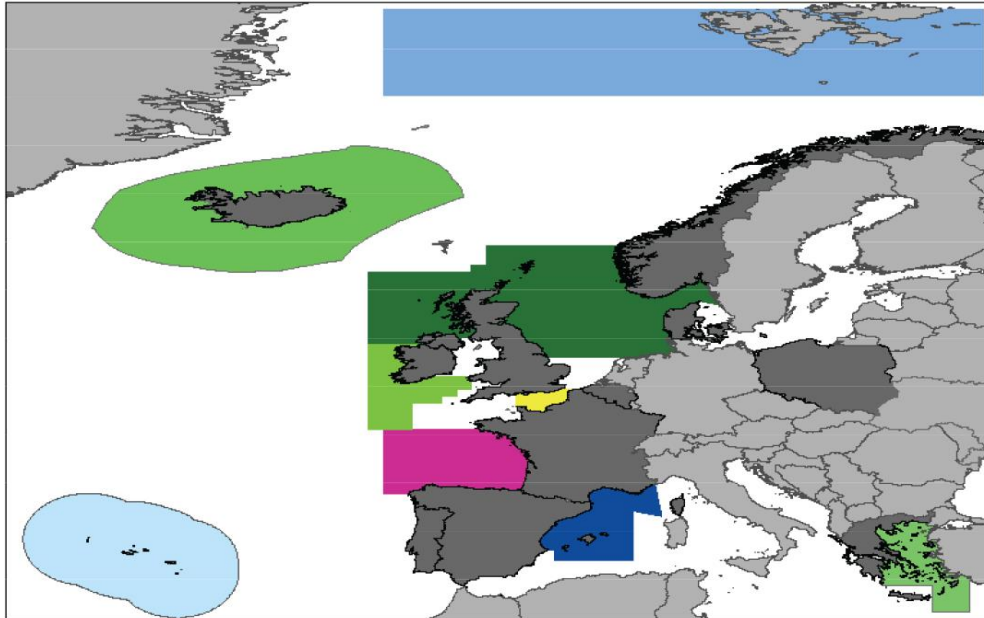
WP7 will provide and integrate knowledge relevant for successful discard governance in Europe. Documentary and interview based research on the background and objectives of the landing obligation will establish an improved basis for progressing towards these objectives.

Lead: University of Tromsø, Norway

WP8 aims to be an effective vector of knowledge transfer, allowing maximal diffusion of scientific results into concrete information that can be bought in by the fishing and seafood industries. The DMS toolbox and our other media products including an educational film will provide a concrete and lively platform for gathering and visualising the knowledge to be exchanged.

Lead: Alphafilm & Communication, Denmark

Working area of the DiscardLess project is presented in the map.



Main focus areas and partners in Europe

Nine relevant cases studies were selected to be investigated by DiscardLess:

- The Azores
- The Eastern Mediterranean Sea
- The Western Mediterranean Sea
- The Bay of Biscay
- The Celtic Sea
- The Eastern English Channel
- The North Sea and West of Scotland
- The Icelandic Sea
- The Barents Sea

Benefits

European fisheries should operate without discards. This aim has been clearly expressed by both the European Union (EU) and other fishing nations in Europe, together with the overall intention to reduce the environmental impact of societies. In accordance with this, the landing obligation in the new EU Common Fisheries Policy (CFP) aims for a gradual elimination of discards of commercially exploited stocks on a case-by-case basis (EU, 2013). The landing obligation encompasses a subset of the catch only, whereby many species will still be legally discarded. This policy will thus lead to less discarding rather than discard-free fisheries. The name of our project reflects this important nuance.

DiscardLess will provide the knowledge, tools, and methods required for the successful reduction of discards in European fisheries. To achieve this, DiscardLess will work through collaborations between scientists, stakeholders and policy makers to support and promote practical, achievable, acceptable and cost-effective discards mitigation strategies, and to make the EU landing obligation functional, credible and legitimate.

The collaborative approach of DiscardLess will ensure that the developed tools, information and strategies will provide relevant, acceptable and cost effective means with a wide uptake in society which will result in the achievement of the goals of the landing obligation.

Identified (module specific practices)

Module aims to use discard fisheries waste to produce BARF for pets. The main aim is to decrease discard fisheries to protect sustainable fisheries. DiscardLess project aims to decrease discard fish.

Drawbacks

- Scientific publications,
- Scientific posters and presentations,
- Deliverables,
- Media (Videos, Newsletters and useful links)

The above case study is adapted from DiscardLess project website and the link <http://www.discardless.eu/>. The text has been shortened for the purpose of the case study, but the wording remains the same as the original. To read the full text please visit this website: <http://www.discardless.eu/>

CASE STUDY-1 WORKSHEET QUESTIONS

1. How does the Case Study-1 system work?
2. Could Case Study-1 system can be implemented outside the region/country? How might this look? (Provide an example using your home country if you have)?
3. Reflect on the benefits and drawbacks of Case Study-1?

Policy/legislation	Benefits	Drawbacks
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1.		
2.		
3.		

CASE STUDY 2: Sancho Pancho

Introduction

“Zero waste: The Portuguese business turning leftover fish into dog treats- Sancho Pancho”

Salmon skin and scraps are rich in omega 3, which is helpful to keeping the skin and fur of pets like dogs and cats, healthy. There is no doubt the food loss and waste, has been undermining the sustainability of our food systems. In an effort to counter this, some small businesses around the world are putting the focus on new sustainable waste management practices.

UN News paid a visit to one such project recently, in the Portuguese capital, Lisbon, where the UN Ocean Conference, will take place, at the end of June.

Sancho Pancho was created by Russian Daria Demidenko, who moved to Portugal in 2015. Her ingenious business idea, involves turning leftover parts of fresh fish, into dog treats.

Ms. Demidenko, established her business by partnering with a Japanese restaurant and some of the fish markets in the Portuguese capital. She’s making use of the parts that don’t make it to the plate, and can’t be used when producing high end sushi and sashimi dishes

Description

Sancho Pancho, a small business that turns leftover parts of fresh fish, into dog treats, is based in Lisbon, Portugal.

Every day, pounds and pounds of fish heads, bones, and skins literally end up in the trash, but Ms. Demidenko has revolutionized the approach to such food waste, by partnering with Sekai Sushi Bar, a Japanese restaurant in the central neighborhood of Santos.

Each day, the restaurant receives around 10 kilos of salmon, tuna and white fish. Sushi chef quickly cleans and prepares the fish, including such treats as a three-kilogram croaker caught right off the Portuguese coast.

The owner of Sekai, Edilson Neves, explained to UN News that, on average, 30 per cent of the fish cannot be used by the restaurant.

“The backbone, part of the tail, the edges, the sides, the part that connects with the stomach, some parts of the fish that are tougher, that have more fibers and skin too, we end up not using them. This 30 to 40 per cent that would go to waste, we end up reusing it through *Sancho Pancho*”.

The name of Ms. Demidenko’s business, alludes to the character Sancho Panza, from Miguel de Cervantes’ classic novel, *Dom Quixote*, and is also a personal tribute to one of her dogs, named Pancho.

She told UN News, about some of the special ingredients and dishes, she’s managed to come up with, making use of the scraps.

“These cookies are made with this type of white fish, which we first cook, and then crush, so the bones have a much smoother texture”, she told us, pointing to one of the dog treats.

“We crush it, mix it with flour and make the cookie. But there are also other types of waste, such as white fish or salmon skins, that you can dehydrate. This type of snack goes into the machine, stays for 20 hours at a temperature of 70°C and then comes out drier, crispier, and we cut it into pieces and make it like little chips, flakes of salmon skin.” In addition to picking up leftovers at the Sekai restaurant, Daria has partnerships with other restaurants and fish markets in Lisbon.

She collects about 25 kilos of leftover fish a week. Her initiative has won praise from the Senior Fishery expert at the Food and Agriculture Organization of the United Nations (FAO), based in Rome, Márcio Castro de Souza.

“This initiative is very interesting and in fact we have seen, not only on an industrial scale, but also small examples of how to reduce fish waste.

“There are already several salmon producing industries in Scandinavian countries that have already reached the level of using 100 per cent of the whole fish. They don’t miss any. They make fillets, use their eyes to make fertilizer or to generate essential oils, so there is already a whole production focused on zero waste”, he explained.

Other initiatives around the world include using fish skin to make wearable products; using fish scales in the manufacturing of lipstick; and squid ink to color dishes like pasta.





Benefits

Snacks made with salmon skin are rich in omega 3 fish oil, which is helpful to keeping the skin and fur of pets like dogs and cats, healthy.

In addition to reusing leftover fish, Daria's brand produces cookies from leftover dehydrated rabbit and pork meat.

The creator of Sancho Pancho says she has already managed to raise customer awareness, of the problems caused by food waste.

"Some customers have told us that they are learning from us, and they are now going to fish markets and butchers here in Portugal and also taking some food waste home now themselves. They don't make snacks for sale, but they manage to make some food for their dogs, cats, or for themselves."

Identified (module specific practices)

This case study is fighting food waste by using fish waste for healthy snacks for pets. It is an innovative entrepreneurship concept in fish waste utilisation to produce pet food.

Drawbacks

30 to 40 per cent of fish that would go to waste, Sancho Pancho ends up reusing it. The world's food waste by 2030 is one of the United Nations' Sustainable Development Goals. Goal 14 also involves sustainably managing marine life. Saving the Oceans and Protecting the Future is the motto of the UN.

The above case study is adapted from the link <https://news.un.org/en/story/2022/06/1119482> . The text has been shortened for the purpose of the case study, but the wording remains the same as the original. To read the full text please visit this website <https://news.un.org/en/story/2022/06/1119482>

CASE STUDY-2 WORKSHEET QUESTIONS

1. How does the Case Study-2 system work?
2. Could Case Study-2 system can be implemented outside the region/country? How might this look? (Provide an example using your home country if you have)?
3. Reflect on the benefits and drawbacks of Case Study-2?

Policy/legislation	Benefits	Drawbacks
1		

2		
3		



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