

INNOVATIVE SOLUTIONS FOR SUSTAINABLE FISHING



DISCARDS

[Verb dih-skahrd; noun dis-kahrd]

Verb (used with object)

1. To cast aside or dispose of; get rid of: to discard an old hat.
2. Cards. To throw out (a card or cards) from one's hand.
 - ↳ To play (a card, not a trump, of a different suit from that of the card led).

Verb (used without object)

3. Cards. To discard a card or cards.

Noun

4. The act of discarding.
5. A person or thing that is cast out or rejected.
6. Cards. A card or cards discarded.

“The portion of the total organic material of animal origin in the catch, which is thrown away or dumped at sea for whatever reason. It does not include plant materials and post-harvest waste such as offal”



Discarding is the practice of returning unwanted, usually deceased, catches to the sea for economical or legislative reasons.

Discards constitute a purposeless waste of valuable marine resources which plays an important role in the depletion of marine populations.

Currently this is one of the most important issues in fisheries, both from a socio-economic and an environmental point of view.

ADVERSE ECOLOGICAL IMPACT

- Discarded fish cause changes to the ecosystem.
- The specific ecological effects of discarding are still under study.
- Discarded juveniles can affect the future spawning population of a species.
- The discarding of mature specimen immediately can affect the spawning population.



ADVERSE SOCIO-ECONOMIC IMPACT

- Discarded fish does not contribute to present or future income and harm the food chain.
- The fishing industry depends on a healthy and sustainable marine ecosystem.



LEGISLATION



Due to the adverse impact Discards are considered as an unacceptable waste of resources and a New Common Fisheries Policy (CFP) has been set up by the European Commission to mitigate and prohibit them.

WHAT DOES THAT MEAN?

By 2019 all species subject to TACs regulation and those below the minimum sizes will no longer be permissible for discard.

As a result, the entire catch must be kept regardless of age, size or species and quantified on board, landed, counted against the quotas and processed.

Undersized fish cannot be marketed for direct human consumption.

The overarching aim of the LIFE iSEAS project is to minimize the legislation's impact on the fishing industry.

Therefore, we aim to:

– To build an on board system (iObserver) to classify and quantify the catch. Such systems will be installed on board, over the belt.

The data collected will be available to check, in real time, the number of discards that ship is generating.

iObserver will also use data of what species were fished and where to create online maps. These maps will be available for shipowners to see which areas are more productive. Meaning any areas with a large amount of discards can be easily avoided.

All the collected data would also be available for contributing to the EU fisheries management, taking into account the key principles for data collection in the framework of the newly reformed Common Fisheries Policy.

iOBSERVER



EFFICIENT FISHING



– Find and implement ways to reduce the number of potential discards by optimising fishing activity.

Through a series of reliable mathematical models that analyse the suitability of fishing areas, we will develop solutions for real-time decisions over fishing activity.

Defining appropriate areas, periods and species in an attempt to avoid unwanted catch, reduce discards and develop effective policies that guarantee fish stocks while maximising yield.

Information will be available through the fishing Spatial Data Infrastructure (SDI) of the project. This will enable the fishing sector to perform more selective fishing, saving fuel and on-board processing time.

iDVP

- Eliminate wastage by defining commercial opportunities at the point of processing when unwanted catch is unavoidable.

The Integral Discards Valorization Point (iDVP) facility will enable previously discarded catch to be processed and traded with the various markets.

The iDVP will be a pilot fully-operative facility located at the Marin Port Authority (Galicia, Spain) to obtain high added-value products from discarded biomass, integrating defined processing units together with potential management, trade and logistic protocols and tools.

This plant will be divided in three different spaces: chilled room storage, food elaboration area (iDVP1) and non-food products area (iDVP3) for undersized fish. Several products and fish paste for human food uses will be produced in the iDVP1. Alternative non- food products such as fish protein hydrolysate, collagen/gelatin, cartilage powder and others will be produced in the iDVP3.





CONCLUSIONS

By the time the legislation comes into full effect in 2019 the LIFE iSEAS project will have:

- Developed an automatic system for performing the identification and quantification of the total capture.
- Proved a sustainable model for more efficient fishing.
- Supplied a fishing SDI to improve the quality of data for marine resource assessment and policy-making.
- Supplied a route to trade for the entire catch regardless of age, size or species.
- Reduced the capture of juvenile and unwanted species.
- Improved marine environments and the populations of non-commercial species.

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