Bio-Economic Impact of Landing Obligation on Spanish Demersal fleets Operating in Iberian Waters

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The Case Study

The Area

The Stocks

The Fleets

Trawl fleets (Spain & Portugal)

Spanish Gillnetters

Spanish vessels using hooks & lines

Purse Seine fleets (Spain & Portugal)

Portuguese Polivalent

Date, Event

www.myfishproject.eu
Motivation

Forecast the impact of landing obligation in the Spanish Demersal fishery system in Iberian Waters:

- Is the effect independent of the fleet?
- Are the stocks greatly impacted?
- Does the effect disappear in the long term?
Scenarios

**Fleet dynamics**
- **Traditional**: Effort share along metiers equal to historical average.
- **Profit Maximization**: The effort share along metiers is such that maximizes the profits in each time step.

**Total Effort Restrictor**
- **Hake**: The fleet stops fishing when the cuota of Hake is exhausted.
- **Max**: The fleet can continue fishing until the cuotas of all the stocks have been exhausted.
- **Landing Obligation**: The fleet stops fishing when the quota of any of the stocks is exhausted.
Profits: Spanish Fleets

![Graph showing profits for Spanish fleets in 2013 and 2025 with different scenarios.](image-url)
Conclusions

• In general biomass is more impacted by fleet dynamics than by LO.
• The effect of landing obligation depends on the fleet and the fleet dynamics used.
• In the long term the negative effect of LO does not disappear and can be even worst.
• Under profit maximization dynamics and LO gillnetters and vessels using hooks and lines manage to make better use of their quotas than trawlers.
• The loss in the fishing opportunities of stocks not subject to quota system is key to the economic performance of the fleet.
• In summary, the fleets that can change their catch profiles to improve the consumptions of their quotas are less affected by the policy.
Thank you for your attention!

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