



Malta, September 12-14, 2022

4th World Small-Scale Fisheries Congress

IMAGINE THE (UN)IMAGINABLE

Revitalizing SSF in Europe



**Fishery essentiality:
Imagining viable and
sustainable small-scale
fisheries in Europe**

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INTERNATIONAL YEAR OF
ARTISANAL FISHERIES
AND AQUACULTURE



GOVERNMENT OF MALTA
MINISTRY FOR AGRICULTURE, FISHERIES,
FOOD AND ANIMAL RIGHTS



The Canary Islands SSF

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A picture 1/2

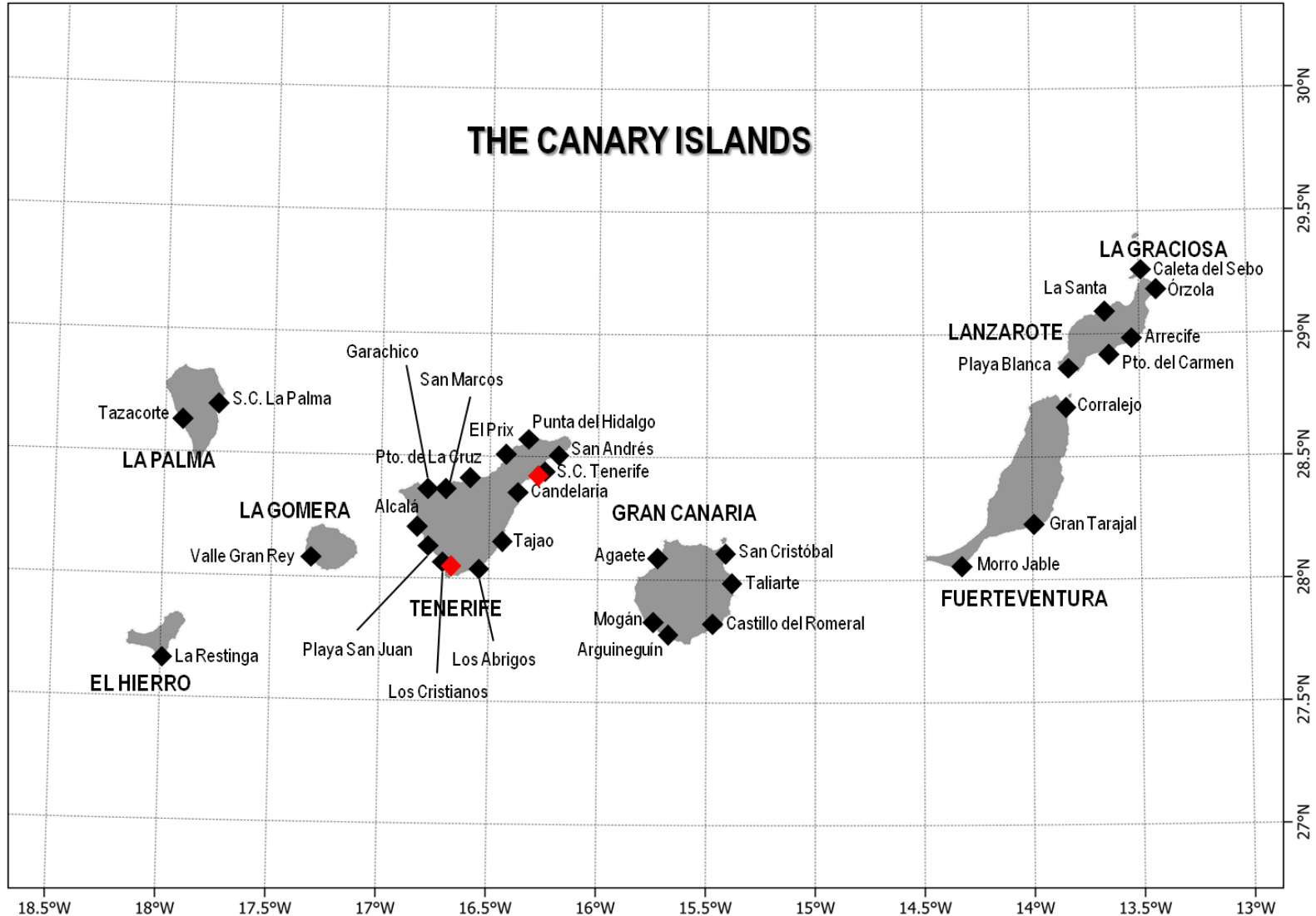


The Canary Islands SSF

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A picture 2/2



The problem

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Background

EC analitical work

European fisheries

Indicator estimation

Ecological
Fishery
Socioeconomic

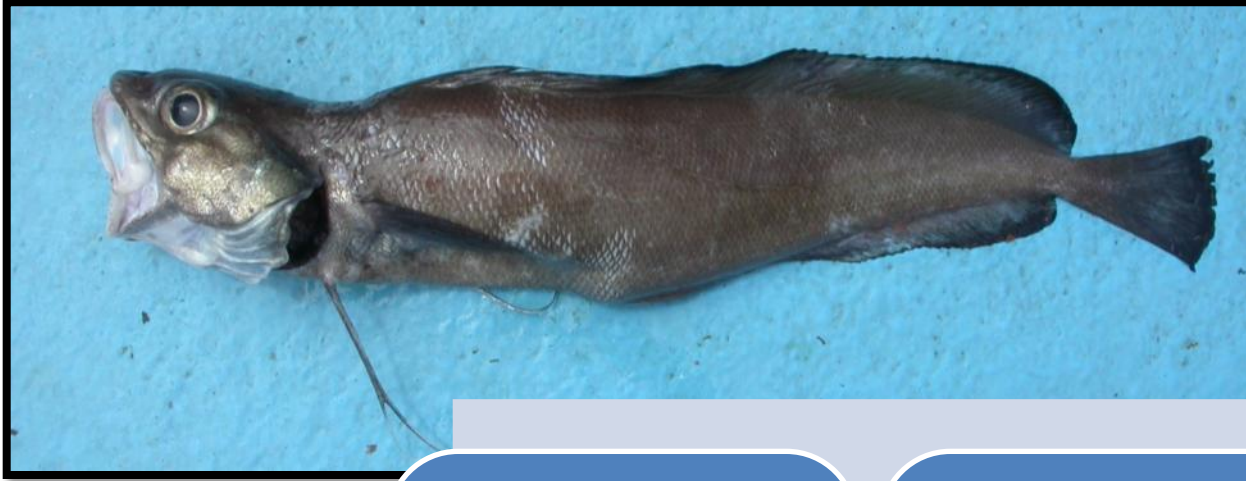


The problem

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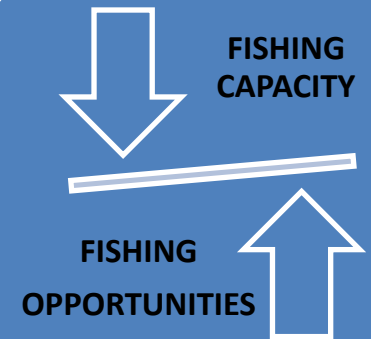
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Indicators used



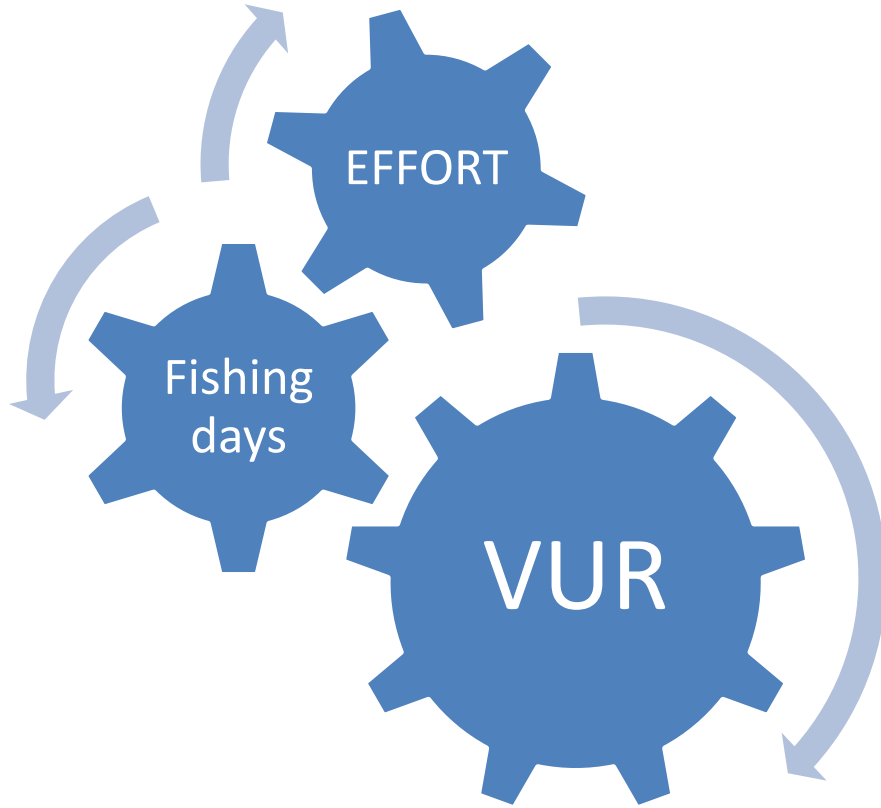
Based on
traditional
concepts
**FISHING
PROFITABILITY**

INDICATORS



The problem

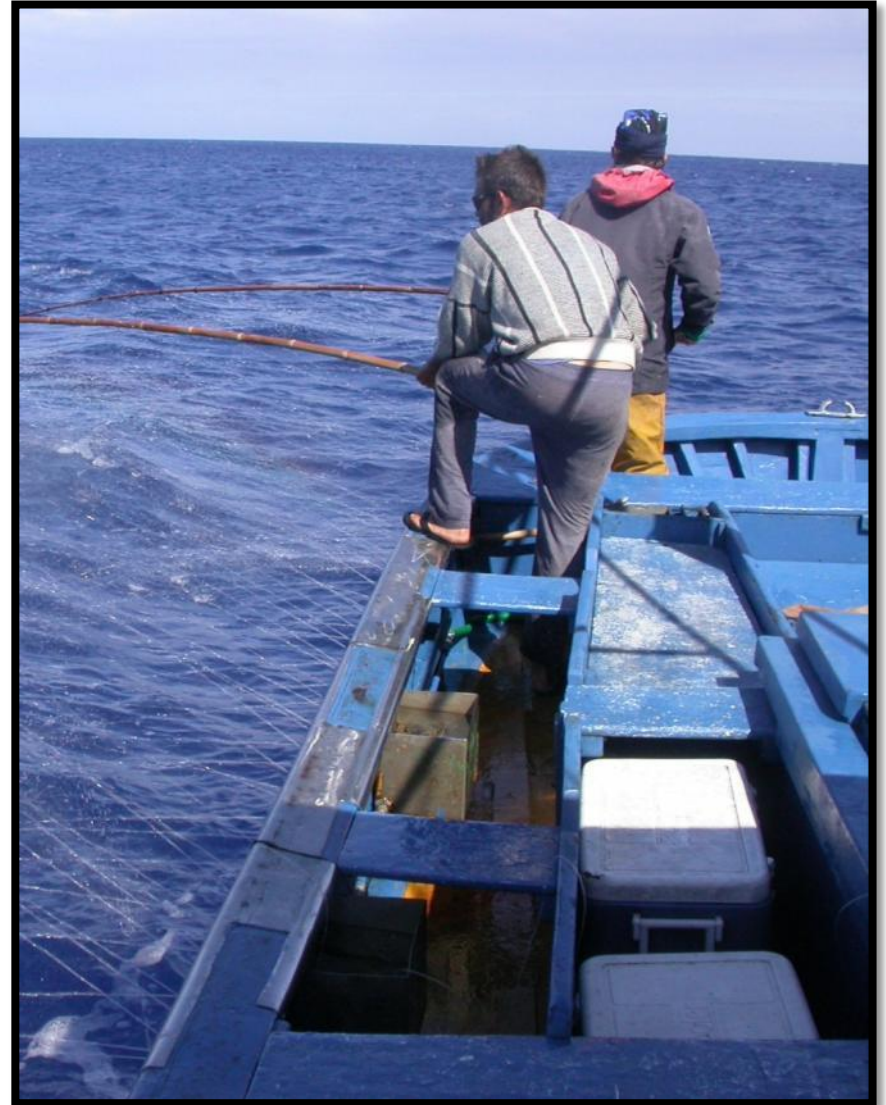
Indicators example



**VESSEL
UTILIZATION
RATE**

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The problem

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Fishing capacity underestimation 1/4

LANDING ECONOMIC VALUE

Income: P

Lower than it should due to:

- Market uncertainties
- Lack of organization of the sector
- Need of better product valorization (market issues)



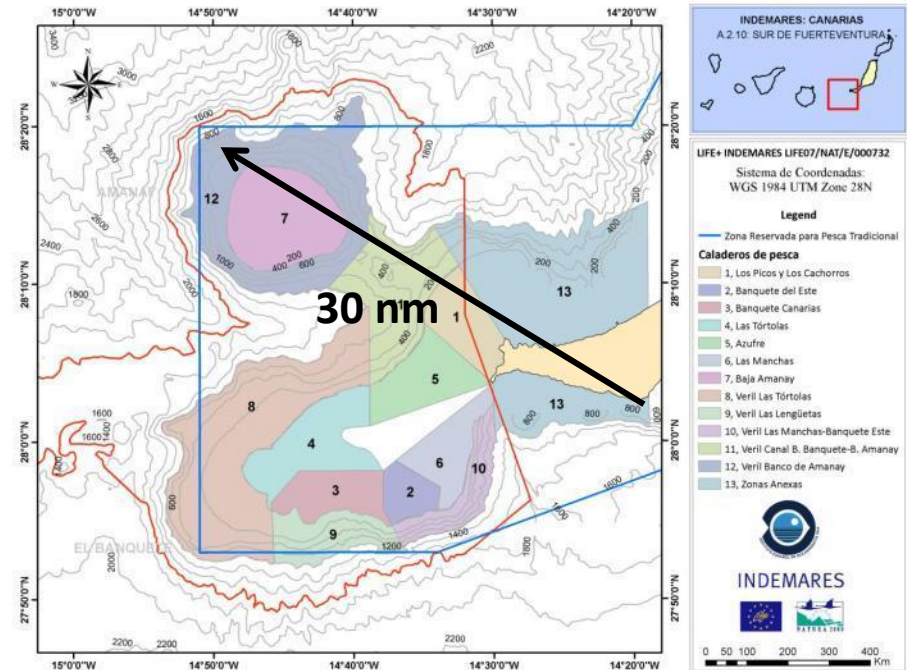
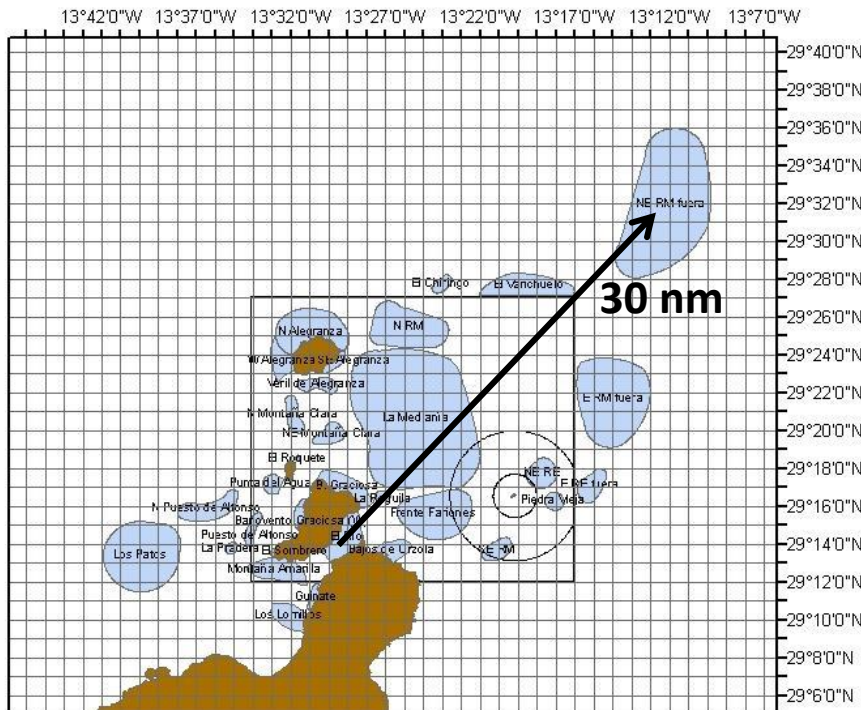
The problem

Fishing capacity underestimation 2/4

FISHING GROUND OCCUPATION

Greatly underestimated than it should due to:

- For the EC, officially, fleets without VMS is 1 mile from the coast
- The majority of the fishing trips are further, reaching the 30 miles



The problem

Fishing capacity underestimation 3/4

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ARTISANAL FISHING UNITS

Fishing capacity per vessel
is underestimated due to:

- Fishing vessels associate in a single unit regularly
- As a consequence of searching economic viability

Fleet recruiting: R



The problem

Fishing capacity underestimation 4/4

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FISHING DAYS

The major degree of underestimation is due to:

- Fishing days officially considered as landing days
- Not to land every fishing day is highly frequent

Frequency: F

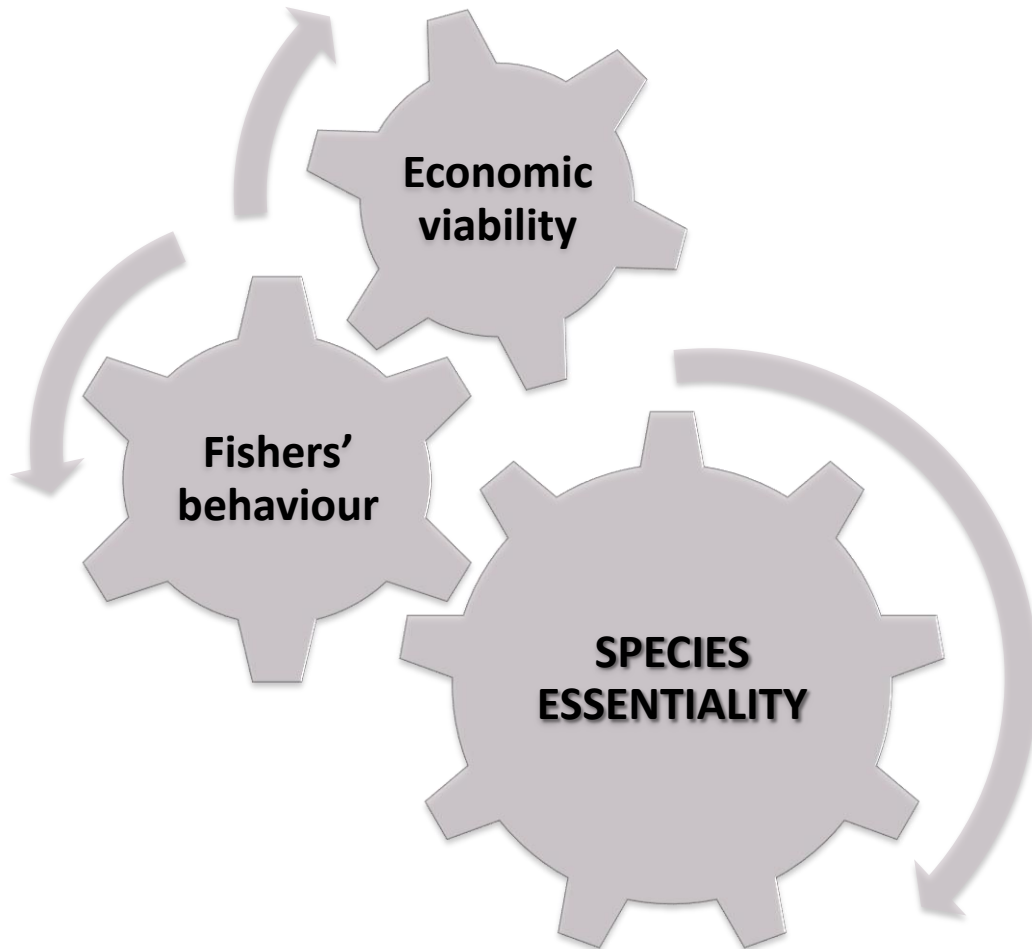


The solution: Fishery Essentiality

Background

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The solution: Fishery Essentiality

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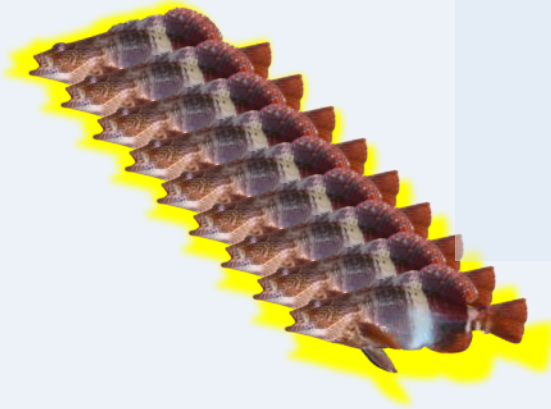
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Explanation 1/2

Index measuring the relative importance of a certain species or a group of them within an artisanal fishery

COMPONENTS

Frequency: F



Income: P



Fleet recruiting: R



The solution: Fishery Essentiality

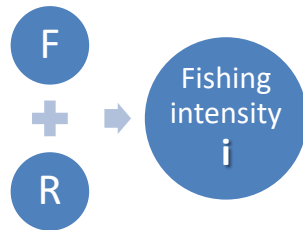
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Explanation 2/2

TO KNOW MORE ABOUT FISHERY ESSENTIALITY

Dorta, C. & Martín-Sosa, P. (2022). Fishery essentiality: a short-term decision method based in economic viability as a tool to understand and manage data poor small scale fisheries. *Fisheries Research*, 246.



$$\mathcal{E}_t^{sp} = \frac{p^{0.6} + 0.25 * \ln(i + 0.018) + 1}{2}$$

ESSENTIALITY FOR A SP

$$C_{\exists} = \sum_{\mathcal{E} \geq 0.5} \mathcal{E} * 100 + \sum_{0.5 > \mathcal{E} \geq 0.3} \mathcal{E} * 50 + \sum_{\mathcal{E} < 0.3} \mathcal{E}$$

Essential sp Fundamental sp Complementary sp

**ESSENTIAL CAPACITY
OF A FISHERY**

The solution: Fishery Essentiality

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Usefulness

Measures **POLIVALENCE** and **VERSATILITY**

Allow **MANAGERS** to **ASSESS** the implementation of **MEASURES**

Allowance of a fishing gear >F & >R

Aids for vessel modifications and/or gear acquisition >R

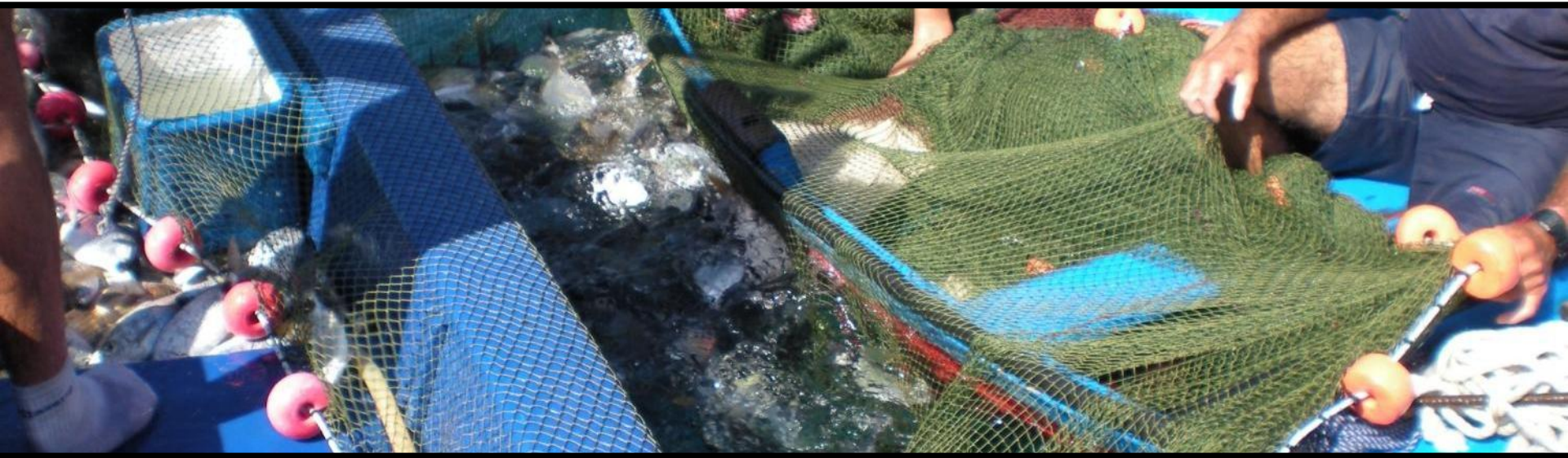
Programs to add value to local sp >P

Aims

Maximization of economic viability

Redistribution of fishing effort among several species

Avoiding an exploitation pattern focused in 1-2 species



The solution: Fishery Essentiality

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Importance in the framework of 4WSFC

Facilitates an scenario of application of **BLUE JUSTICE**:

- **SUBSIDIES** received correspond to actual fishing capacity
- Management measures boost low impact fishing through **FISHING EFFORT REDISTRIBUTION**
- SSF **GOVERNANCE** is carried out by a decision-making process resting with the local government





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**THANKS
FOR
YOUR
ATTENTION**

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