

D4.2.1

Shared Sustainable Fishery Protocol for SSF

Premise

The Protocol is inspired by a series of preliminary analyses carried out at the Caorle Marinery and is focused on artisanal fishing (See D3.2.2). This has in fact been identified as the type of fishing activity that, for the techniques and the type of boats used, is closer to the concept of sustainable exploitation of renewable resources.

The core of the protocol is a series of concrete actions to promote and improve the sustainability of artisanal fishing. As noted above, the participatory process that led to the identification of these actions should be emphasized.

With regard to three fundamental elements, the protocol is developed as follows:

Law compliance – While respecting the law is a prerequisite, it is a fact that for fishing activities, as in other activities, it is difficult for everyone to verify timely adherence to the legislation, by everybody and at any time. With this in mind, participating fishermen are willing to adopt procedures necessary to ensure that fishing takes place in full compliance with the rules set by the community (see “Checks” section). In particular:

- compliance with regulations on tools, mesh size and allowed fishing periods (as specified in Annex 1 and 2), as well as on-board safety and hygiene standards;
- use of the landing points at the fish market or, alternatively, deliver the catches to the dedicated spaces that will be set up as part of the Project;
- disposal of the nets and tools through appropriate delivery procedures, to be activated in collaboration with the local company responsible for the collection of urban waste.

Respect of resources and implementation of sustainable techniques – participating fishermen are committed to:

- implement practices aimed at the general improvement of tool selectivity, using, where possible, nets with mesh sizes larger than the minimum law size, in order to avoid, as much as possible, the capture of under-sized individuals (see Annex 1 for technical details);
- use systems that reduce/avoid accidental capture of non-commercial species, such as the “alzata” of trammel nets (see Annex 1 for technical details);

- respect the biological cycles of the different species (see Annex 2 for technical details);
- avoid, as much as possible, the capture of early life history stages of the target species;
- safeguard, with appropriate actions, cuttlefish eggs, to improve the chances of hatching (dedicated fyke nets to be gathered into protected places, such as those to be set up within the marine oasis of the Caorle tegnuè);
- free all specimens under size or belonging to non-commercial species whenever possible, thus improving their chances of survival;
- if possible, take alternative activities (related to tourism) aimed at supplementing income, with the aim of reducing fishing effort and therefore pressure on exploited resources.

Commitment to reduction: the participating fishermen are committed to reduce CO₂ emissions (as individuals or as a group), in particular:

- undergo consumption monitoring, by collecting data aimed at calculating specific indicators;
- activate procedures to reduce fuel consumption, for example by preferring fishing areas closer to the port of afferece;
- assess the opportunity to make their boat more efficient (including through access to dedicated funding).

Advertising: participating fishermen commit to:

- join the promotional initiatives that will be prepared from time to time to raise consumer awareness in relation to the sustainability path undertaken; In particular, as part of the Adri.SmArtFish Project, they are committed to contributing to the realization of the "Fisherman's Village" provided by Activity 4.3, and to participate, in coordination with project partners, in the initiatives of Consumer awareness provided in the communication plan;
- use all alternative activities as a vehicle for disseminating the protocol and its social and environmental importance;
- promote the protocol with their own business.

Application range

The artisanal fishing protocol is aimed at SSF operators who carry out their activities with passive nets and traps, or other allowed harvesting techniques. We are turning to those fishermen who voluntarily want to reduce their impact on the environment and resources.

Subscription to the protocol is free and voluntary. For this reason, in its initial phase, it does not require compliance with quantitative limits but calls for the application of certain technological standards and selection of the catches.

Application

Subscription to the protocol consists of several stages, all of which are fully voluntary. In particular, the protocol application procedure consists of a fisheries management plan that gradually, but strictly, will lead to the implementation of the previously outlined guidelines.

The steps that allow the application of the protocol are, in summary, the following:

- initial analysis of the applicant's activity and equipment that directly and indirectly affect the marine-coastal environment, in particular the sustainability of the production process (fish product capture);
- evaluation of a personalised programme to improve SSF performance, aimed at respecting ecological processes as well as the quality of the fish product;
- implementation of a management system aimed at achieving the objectives of improving the fishing process (in terms of environmental compatibility and safety of fished products) defined in the above-mentioned programme;
- verification of operation and effectiveness;
- activation of appropriate communication campaigns aimed at informing consumers and involving potential stakeholders.

Protocol checks

The protocol is verified on three separate levels:

- self- verification;
- spot checks;
- certification.

Self- verification

Since it is a voluntary-accession protocol, the first level that ensures its application is to be found in the good faith of the operators themselves, who, by adhering to the protocol, are committed to complying with its principles in accordance with the lines identified at the previous steps and the detailed technical provisions in the attachments.

For the same principle, it will be the community of participating fishermen to ensure, through peer-to-peer control, that every single operator involved respects the protocol.

Spot controls

As part of the Adri.SmArtFish Project, an association of SSF operators will be set up. The association will require the subscription of the present protocol by the associates. In order to ensure its implementation, the association will implement a plan of spot checks aimed at verifying, in the dock and on board, the compliance with the parameters specified in attachments. In particular, it will be necessary to check:

- Mesh size – respect for the minimum mesh recommended in Annex 1 (knot-to-knot distance) measured with the "stretched" net (extended so that the four sides of a mesh come to touch each other). The dimensions should be detected by measuring at least n. 10 contiguous meshes and calculating the average length.
- Minimum landing size – respecting the minimum sizes recommended in Annex 2. The test should be carried out on a sample of at least n. 50 individuals for each species captured (when available).

Certification

To further guarantee the application of the protocol, the association will be able to contact a third-party certification body that takes care to certify compliance with the protocol through a standardized procedure and the production of periodic reports.

Annex 1 - Gears

Selectivity

Comparison between the minimum mesh of the nets, which is the smallest size capture, and suggested mesh to be used in the tools of the protocol enforcer. At present, Croatia and Italy have different legal minimum mesh sizes:

	Net	Target specie	Minimum size	Suggested measure
Croatia	Trammel	Cuttlefish	32	35
	Gillnet	Smooth-hound	60	60-80
	Trammel	Common Sole	40	42
	Gillnet	Common Sole	40	42-45
	Gillnet	Gilt-headed Seabream	40	40-45

	Net	Target specie	Minimum size	Suggested measure
Italy	Trammel	Cuttlefish	32	35
	Gillnet	Smooth-hound	40	50-80
	Trammel	Common Sole	28	32
	Gillnet	Common Sole	32	38-45
	Gillnet	Gilt-headed Seabream	35	40-45

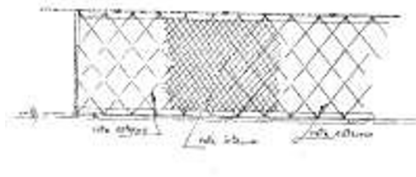
Equipment

Trammel / Gillnet

With this type of fishing tool, the fish gets caught between the nets. These can be mainly of two types: trammel (consisting of three net panels: the interior, with the smallest mesh, the outers with wider mesh) or single-mesh gillnet (consisting of a single net panel).

These nets are laid on the bottom and held vertically via floats.

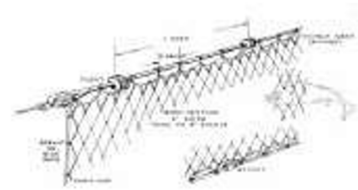
The trammel for cuttlefish can mount a piece of net made of thick threads, with variable mesh size (20-40 mm) and a height of 20 to 40 cm. This net panel is fixed between the lead line (i.e. the part of the network in contact with the bottom) and the trammel and it is used to raise the net by about 30 cm from the bottom.



Trammel net



Trammel net for cuttlefish



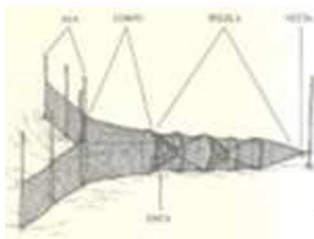
Gillnet

Traps

The traps are dedicated to the capture of fish, crustaceans or shellfish, and have the form of cages or containers. They are made in various materials, but commonly nylon or iron nets and plastic structures are used and have one or more openings. They are usually placed on the bottom, with or without bait, in rows and connected with ropes.

Fyke net

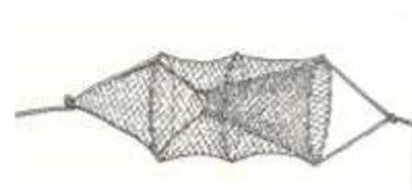
Fyke nets are normally used in shallow areas. They are cylindrical or conical in shape and are mounted on rings or other rigid structures, completely covered with net and can be complemented by wings or guides that direct the fish towards the opening of the bag.



Fyke net



Trap for snails



Fyke net for cuttlefish

Annex 2. Minimum legal and voluntary size

Fish	Legal size	Average size at first maturity	Voluntary minimum size	Minimum accepted size	Net	Spawning period	Fishing ground
<i>Anguilla anguilla</i>	25	45 - 65	46.5	42	Fyke net	Autumn	Lagoon
<i>Chelon</i> sp. pl.	20	20 - 30	24.5	21	Gillnet	Depends on species	Lagoon
<i>Sciaena umbra</i>	20	25	21.5	19	Gillnet	May - July	Sea
<i>Chelidonichthys lucernus</i>	20	24	21.5	19	Gillnet	Winter	Sea
<i>Lithognathus mormyrus</i>	20	19	22	19.5	Gillnet	Summer	Sea
<i>Umbrina cirrosa</i>	25	35 - 38	25	22.5	Gillnet	May - August	Sea
<i>Sparus aurata</i>	20	20 (M) - 30 (F)	30	24	Gillnet	October - December	Sea
<i>Mustelus mustelus</i>	--	60 - 100	60	60	Trammel, trawling	Spring	Sea
<i>Platichthys flesus</i>	15	24	22	19.5	Gillnet, fyke net	Spring	Lagoon
<i>Scophthalmus rhombus</i>	20	33 - 41	29	26.5	Trammel, trawling	Winter	Sea
<i>Psetta maxima</i>	25	35	31.5	29	Trammel, trawling	Winter - Spring	Sea
<i>Diplodus</i> sp. pl.	18 - 23	25	23.5	21	Gillnet	Summer - Autumn	Sea
<i>Solea solea</i>	24	30	24.5	21	Trammel, trawling	Winter	Sea
Molluscs							
<i>Sepia officinalis</i>	100 g	set-13	--	--	Trammel, fyke net	Winter - Spring	Sea
<i>Nassarius mutabilis</i>	2	Always	2	2	Traps	Spring	Sea
Crustaceans							
<i>Homarus gammarus</i>	30	5 - 8 years	35	31	Others	March - June	Sea
<i>Squilla mantis</i>	--	--	12	8.5	Traps	Spring	Sea
<i>Maja squinado</i>	12	15	20	18	Others	Spring	Sea

* all measures expressed in cm