



Strengthening local resource management



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List of acronyms

MPA	Marine Protected Area	EMFF	European Maritime and Fisheries Fund
GES	Good Environmental Status	FLAG	Fisheries Local Action Group
AC	Advisory Council	IFCA	Inshore Fisheries and Conservation Authority
ICES	International Council for the Exploration of the Sea	IUU	Illegal, Unreported and Unregulated Fishing
STECF	Scientific, Technical and Economic Committee for Fisheries	ENGO	Environmental Non-governmental Organisation
BD	Birds Directive	CFP	Common Fisheries Policy
HD	Habitats Directive	MSY	Maximum Sustainable Yield
MSFD	Marine Strategy Framework Directive	TAC	Total Allowable Catch
EFF	European Fisheries Fund (2007-2013)	SAC	Special Area of Conservation
		UEGC	Concerted Exploitation and Management Units

Foreword

The Common Fisheries Policy (CFP) governs water and fisheries area management in the European Union (EU). As such, it is the principal body of law covering fisheries areas and aquaculture. However, there are other EU policies that directly or indirectly affect fisheries and aquaculture activities.

Most notably, these include the EU's marine and environmental policies, as defined in the Marine Strategy Framework Directive (MSFD), the Water Framework Directive (WFD), and the Birds and Habitats Directives. EU Member States are responsible for implementing these directives. They are applied locally in different ways, depending on national and regional institutional arrangements.

Fisheries Local Action Groups (FLAGs), as development organisations working on the ground, are in a strong position to support and encourage more inclusive local resource management processes.

While FLAGs are not specifically mandated to manage fisheries resources, development can only happen sustainably if the resources on which it depends are managed properly. For that reason, FLAGs have every reason to be involved in supporting local resource management initiatives.

Ahead of the **“FLAGs and local resource management” seminar**, held in Vigo, Spain, on 13-15 March 2018, the FARNET Support Unit asked FLAG network representatives for information about the extent of their activities on this issue. The following conclusions can be drawn from a quick analysis of the feedback received:

- Most FLAGs (almost 70%) have, at some stage, supported projects that aim to foster more sustainable fisheries and aquaculture development. In effect, development is a cross-cutting theme that encompasses a wide range of sub-themes, each of varying importance across different FLAG territories. For instance, while 70% of FLAGs are keen to develop local co-management initiatives, less than half said they have already supported a project that specifically targets this issue.
- The same applies to environmental certification and fishing activity monitoring. Both are topics of particular interest to FLAGs (mentioned by 60% of them), but only around one-third have supported local projects that touch on these themes.
- Based on the questionnaire answers, we opted to group fishing gear innovation and landing obligation together. While these are seemingly lesser priorities for individual FLAGs, it is nevertheless worth addressing them in this guide. Although these technical themes are important for fishing communities, FLAGs themselves probably have limited understanding and interest in them. Clarifying what the law says about these subjects, and outlining what role and action FLAGs could take on this front, might well help the fisheries sector take greater ownership of these issues.
- Lastly, more than 65% of FLAGs stated that the territory they covered contains a marine protected area (MPA), and 9 out of 10 stated their territory includes a Natura 2000 site. While most FLAGs have limited interest in helping set up an MPA, around half mentioned the importance of technical and financial assistance to support fishing activity management in these areas.

This brief overview raises several questions about local resource management:

- How can FLAGs be actively involved in designing and implementing an inclusive local resource management process, and what role could they play in this process?
- How can FLAGs help make local activities more sustainable and contribute to protecting the environment?
- What is the best way to integrate fisheries and aquaculture activities in protected areas? What can FLAGs do to make these activities more socially acceptable and get local people and the fisheries sector involved in supporting their development?

This guide will seek to answer these questions from both a methodological and practical standpoint. It is divided into five thematic factsheets:

Factsheet 1 Local resource co-management

Factsheet 2 Managing Natura 2000 sites and marine protected areas

Factsheet 3 Monitoring local fisheries resources and fishing activities

Factsheet 4 Sustainable fisheries certification

Factsheet 5 Improving practices and applying the landing obligation

Readers are invited to consult the factsheet(s) most relevant to their local circumstances. Each factsheet also features case studies of FLAG initiatives and activities, along with references to other sources of information.

In addition to these five factsheets, the guide also contains a handy overview of key laws, policies and concepts around local resource management. We will refer to this section at regular intervals throughout the guide, whenever we introduce a concept or legal aspect in one of the factsheets.



Factsheet 1

Local resource co-management

1.1 What is this factsheet about?

Fisheries co-management is a model under which user groups and authorities are jointly involved in regulating fisheries activities. Under this arrangement, users manage fisheries resources (and associated activities) as equals alongside “conventional” managing entities (such as authorities or national parks). In practice, co-management comes in many different shapes and sizes, depending on the extent to which decision-making power is really shared with users.

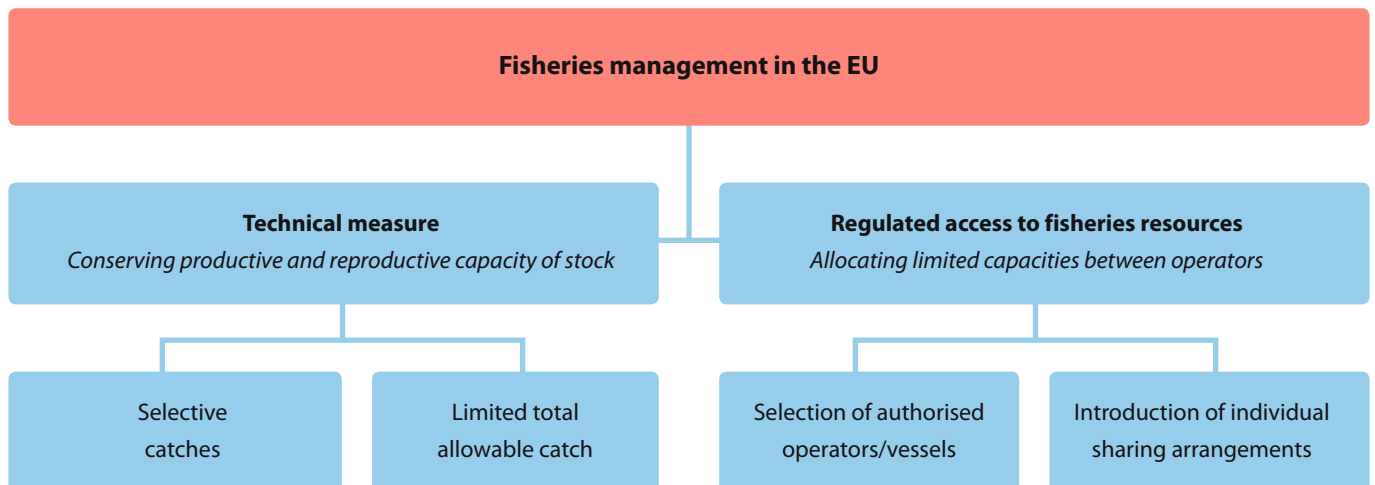


Figure 1 : The two key components of fisheries management (adapted from Boncoeur, 2006)

Co-management is built on three cornerstones – having the right institutional arrangements in place to enable users to participate, harnessing all available knowledge, and reforming the existing institutional structure.

Science is vital in this process because scientific knowledge plays a decisive role in fisheries management. Catches and fishing methods are strongly influenced by scientific advice.

Fisheries co-management is part of the global debate around renewable natural resource exploitation, and the use of common goods more generally. The model has many benefits, as evidenced in various scientific publications:

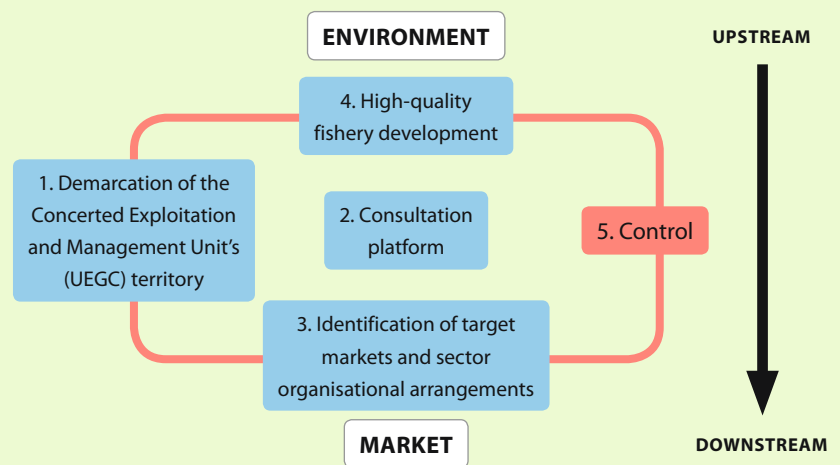
- It allows resources to be managed in a way suited to the local context and circumstances / **CONTEXT**;
- It streamlines and shortens the decision-making process / **EFFICIENCY**;
- It includes local knowledge / **CREDIBILITY**;
- It strengthens compliance with the rules / **LEGITIMACY**;
- It strengthens the legitimacy of the rules because users are included in the process / **DISPUTE RESOLUTION**.



A step-by-step guide to introducing fisheries co-management¹

1. Demarcate the territory

Wherever possible, the territory covered by the co-management model should be a uniform fisheries area. The definition of “fishery” is a useful guide for determining what a uniform area entails. It is defined as follows: “A geographically delimited fishing capacity management entity where multiple fishermen operate, catching species living in habitats with similar traits.”² A fishery is characterised by the fishing gear used, the species caught, and the fisheries area.



2. Set up the co-management platform

- › Build a framework for consultation between the upstream and downstream parts of the sector.
- › Create a management body, led by a coordinator/facilitator, to share information and gather views from all parties.
- › Carry out a joint assessment of the state of the fishery (economic, social and environmental conditions) – a baseline position that all parties agree with.
- › Agree on a roadmap setting out 10-year targets for managing a sustainable fishery.
- › Define a list of indicators to measure how the management process drives progress towards the agreed targets.

3. Identify high-value markets and organise the sector accordingly

The challenge is to adjust catches to the right level – and adopt the right fishing methods (boat type and size, gear, etc.) – so as to extract maximum economic and social value from local productive capacity and marine resources, in a way that benefits the entire sector.

4. Lay down the rules

Fisheries should set a quota according to the fisheries area’s biological productivity, which in turn depends on ecosystem health. The quota is then shared between users (see Figure 1).

Fishermen can use their own expertise to determine what gear is allowed and what other factors to take into consideration (such as seasonal closures).

5. Enforce the rules

Fisheries should ensure the rules are strictly enforced across the sector, to prevent fraud and irresponsible behaviour by a minority undermining the efforts of the majority.

¹ *Pour une pêche durable en France et en Europe*, proposal from the World Wide Fund for Nature (WWF), 2007.

² *L'approche par pêcheurie*: definition proposed by the French Research Institute for Exploitation of the Sea (IFREMER), January 2008.

1.2 The role of FLAGs: possible options

FLAGs can play a vital role in setting up local fisheries co-management arrangements, for example by:

- Strengthening user involvement (training, attending meetings, etc.);
- Acting as a unifying force for all relevant parties (defined in the scientific literature as a “pivot organisation”, Berkes F., 2009) and as a facilitator (considering the full breadth of opinion);
- Setting up or strengthening inshore fisheries management organisations to help decentralise fisheries management;
- Taking part in research involving users (“participatory research”) to improve scientific knowledge;
- Helping to introduce self-assessment procedures (getting users involved in monitoring their fisheries areas) to strengthen compliance with the law.

Below are three examples of FLAG-backed projects that perfectly illustrate why co-management initiatives are important, and the impact they can have. Because FLAGs bring together actors such as fishermen, managers, scientists and environmentalists (to name but a few), they are well-placed to play their part in developing local co-management models.



**Sergi Tudela, Director General for Maritime Affairs and Fisheries,
Autonomous Community of Catalonia (Spain)**

We began trialling new fisheries co-management models in Catalonia in 2012, with promising results. The Directorate General for Maritime Affairs and Fisheries therefore decided to write co-management into fisheries legislation so that the model could be applied to all management plans under its responsibility. Special co-management committees have been set up; with fishermen, managers, scientists and environmentalists all having an equal say in the decision-making process.

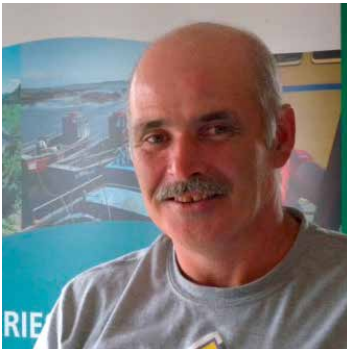


Because local, multi-stakeholder, committees act as managing authorities, management decisions are taken much closer to the action and to coastal communities. This arrangement fosters greater responsibility and strengthens compliance with the rules, as well as making it easier to reach environmentally and economically acceptable solutions. Based on our experience, we believe that co-management models are perfectly suited to Mediterranean inshore fisheries, which range from small boats catching sand eel with Seine nets (where the initial sale price has increased thirty-fold in five years) to local trawler fleets (in areas where fishermen have voluntarily set up no-fishing zones along the Girona coast). This approach also supports local development initiatives in areas that rely on fishing.

The two FLAGs that cover most of Catalonia’s fisheries areas (**Mar de l’Ebre**, and the **Costa Brava** to the north) are chaired by representatives of local fishermen’s federations (known as *cofradías* in Spanish) and often build on the achievements of local co-management initiatives. The Catalan government also plans to expand the co-management model to encompass other sectors in particularly sensitive areas (such as the Formigues Islands and the Costa Brava) and has similar plans for Catalonia’s maritime policy (having recently created a new Catalan Council for Maritime Co-management).



Eddie Moore, inshore fisherman, chair of the South-West Regional Inshore Fisheries Forum and vice-chair of the National Inshore Fisheries Forum (Republic of Ireland)



Fishermen have long been trying to organise themselves in order to give Ireland's inshore fisheries sector a voice, but they've always found it impossible to present a unified front. I think the new National Inshore Fisheries Forum has solved that problem. It's far from perfect, but that will come with time. I've been a fisherman for almost 40 years now. Attending the forum meetings has helped me realise that fishermen aren't the only ones frustrated with the lack of organisation in the inshore sector.

How can we solve the problems we face without a place that allows managing authorities and the inshore sector to communicate? The future of the Inshore Fisheries Forums lies in fishermen's hands. The Department of Agriculture, Food and the Marine and *Bord Iascaigh Mhara* (BIM, Ireland's Seafood Development Agency) have worked together with the European Maritime and Fisheries Fund (EMFF) and the FLAGs to give us a voice.³ I'd like to see more fishermen – and women – attending these forums. There's a lot of work to do and too few people to do it. We have to build on what we've achieved so far and keep the momentum. Inshore fisheries need to be managed locally. There's no one-size-fits-all model. With all the changes that lie ahead, it would be a crying shame if the inshore fisheries sector was no longer able to speak with one voice through these forums.



Teresa Cruz, scientists, Marine and Environmental Sciences Centre (MARE), Laboratory of Sea Sciences, University of Évora, Sines (Portugal)



Al Percebe (the goose barnacle) is a joint project between the University of Évora, the **Littoral Alentejano** FLAG, *Associação de Mariscadores da Terra do Vasco da Gama* (a local hand-gatherers' association) and *Associação de Armadores da Pesca Artesanal e do Cerco do Sudoeste Alentejano e Costa Vicentina* (a regional fishermen's association). The project, co-financed by EMFF, began in January 2018 and will run until December 2020.

The project's main aim is to assess and improve the current situation of the goose barnacle (*Pollicipes pollicipes*) stocks at Sines Cape and to change how the resource is managed locally by transferring knowledge between scientists and fishermen. The project will involve six activities: 1/ devising and implementing an experimental fisheries co-management system at Sines Cape; 2/ monitoring the status of the resource and the fishery; 3/ restoring fished areas on a trial basis; 4/ commercialising the species across the

Alentejo region; 5/ improving scientific research capabilities and strengthening fishermen's organisations to allow them to play a greater management role; and 6/ disseminating co-management best practice and project outcomes.

³ The FLAGs helped set up the National Inshore Fisheries Forum.

1.3 Key success factors and possible obstacles

- Have all FLAG members agree on a shared vision of their marine territory (move away from blinkered view and see the bigger picture);
- Harness fishermen's empirical knowledge through a local management system;
- Play a role in local sustainable development;
- Set up a flexible, scalable governance system to account for constantly changing circumstances;
- Curb illegal practices by getting users involved in, supportive of, and accountable for the success of local management.

1.4 Further information

- **Co-managing the Coastal Zone: Is the Task too Complex?** Jentoft, S. (2000b). *Ocean and Coastal Management*, 43, 527–535.
- **Decentralising : The implementation of regionalisation and co-management under the post-2013 Common Fisheries Policy** (S.Q. Eliassen, T. J. Hegland, J. Raakjær, 2015).
- **Co-management in fisheries – Experiences and changing approaches in Europe** (S. Linke and K. Bruckmeier, 2015).
- Evolution of co-management : role of knowledge generation, bridging organizations and social learning. (Berkes, F. 2009) *Journal of Environmental Management* 90(5) : 1692-1702.
- **Managing Small-scale fisheries. Alternative Directions and Methods.** (Berkes F. & al. 2001). International Development Research Centre. ISBN 0-88936-943-7.
- **Fishery Co-Management. A Practical Handbook.** (Pomeroy R.S. & Rivera-Guieb R. 2006). International Development Research Centre. ISBN 1-55250-184-1.



Factsheet 2

Managing Natura 2000 sites and marine protected areas

2.1 What is this factsheet about?

EU marine protected areas (MPAs) come in many shapes and sizes and have different objectives. In recent decades, Member States have stepped up their efforts to develop these protected areas. As a consequence of this momentum, and of the Birds and Habitats Directives,⁴ the Natura 2000 network now covers 18% of the EU's land mass and 6% of its marine territory. Both Natura 2000 directives are designed to restore or maintain favourable conservation status. The Marine Strategy Framework Directive (MSFD) has a similar aim – reaching or maintaining a good environmental status of marine waters (see “Key concepts” section later in this guide).

Progress towards numerical targets has been hampered by shortcomings in the implementation of MPAs across Europe, especially marine Natura 2000 sites. An inability to address environmental changes outside the boundaries of each site, a lack of reliable data, and only limited impact on modifying behaviours are just some of the weaknesses from which the network suffers. In addition, the entire process includes a lot of red tape and the network is beset by managerial problems. More generally, the Natura 2000 policy is considered overly technical and is little-known among the general public.⁵

These issues can only be addressed through qualitative improvements to the legal and governance framework, and by ensuring that adequate quality and numbers of staff and managers are in place. FLAGs could play a decisive role in MPAs and Natura 2000 sites because they rely on local knowledge and participation.

2.2 The role of FLAGs: possible options

MPAs have a dedicated management plan, whereas Natura 2000 sites are managed based on documented targets. These MPAs are ineffective and fail to achieve the expected outcomes because this system is often described as being “out of touch” with the reality on the ground and the people and organisations who live and work there.⁶ FLAGs are managed differently. They cover many of the same broad themes addressed by an MPA and, as such, are well-placed to table innovative proposals to managing authorities and stakeholders, thereby helping the MPA achieve its targets. Consequently, they play a vital role in empowering stakeholders in the territory or MPA in which they work.

4 The Birds Directive (Directive [2009/147/EC](#) of 30 November 2009 on the conservation of wild birds) sets out the rules governing the protection, management and regulation of wild bird species. It applies to birds as well as their eggs, nests and habitats. The Habitats Directive (Directive [92/43/EEC](#) of 21 May 1992) concerns the conservation of natural habitats and of wild fauna and flora.

5 Rouveyrol P., 2016. Evaluer l'efficacité de la mise en œuvre des directives Nature en France : synthèse bibliographique et perspectives de travail – MNHN-SPN. 52 p.

6 Chaboud C., Galleti F., 2007. Les aires marines protégées, catégorie particulière pour le droit et l'économie ? Monde en développement n°138, p27-42.

a. Contributing to MPA management and design

By virtue of their unifying role, FLAGs can help to ensure that a project is a genuine team effort involving all relevant stakeholders. They provide a forum for professionals to state their expectations and share their views about how the MPA should be regulated. Stakeholders outline a series of scenarios, both for themselves and for the area in question, before collectively approving the best option.

An example of this process in action is the creation of a wilderness reserve off the coast of Agde, on France's Mediterranean sea-board, where fishermen were fully involved in the process (FLAG for the Thau basin and the coastal area from Frontignan to Agde, Occitania, France).

This is a prime example of a process where a FLAG has been directly involved in bottom-up management, helping to promote ownership of conservation issues by engaging local stakeholders and creating a forum for people and organisations to meet and discuss. FLAGs provide a unique opportunity for local members to make their voice heard and to implement effective MPA co-management models (see Factsheet 1 of this guide).

Two further examples, again from France, clearly show how FLAGs can contribute to setting up protected areas:

- The **Marennes Oléron FLAG** (Nouvelle Aquitaine) helped recruit a coordinator tasked with involving fishermen in the creation of the Gironde Estuary and Pertuis Charentais Marine Natural Park.
- As part of the recent expansion of the Belle-Île-en-Mer Natura 2000 special area of conservation (SAC), the island's inter-municipal community asked the **Pays d'Auray FLAG** (Brittany) to make sure fishermen were involved in the new management plans and in achieving the area's conservation targets. FLAG funds were used to hire an official tasked with consulting fishermen and their local representatives about ways to strengthen monitoring of fishing in the SAC and to help develop fishing-related activities, including a new fishing tourism industry.

More generally, both projects helped bring about a step-change in relations between environmental management authorities and fishermen.

Expert advice

- Identify and involve, from the outset, all relevant stakeholders in preparing for and implementing the creation process;
- Have the process managed locally so that it is appropriate to the situation on the ground and set up a network of local coordinators and experts;
- Manage interactions between marine and inland sites through effective coordination.

Tools

- Interactive discussion platforms.
- **Territorial Use Rights for Fishing (TURF) Reserve**⁷: a special area where a group of fishermen is granted exclusive access and is responsible for working together to manage local resources, to counter the impact of overfishing in inshore fisheries.
- Co-management tools (see Factsheet 1).

7 Christy, F.T.Jr., Territorial use rights in marine fisheries: definitions and conditions. 1982. FAO Fish.Tech.Pap., (227): 10 p.

b. Reducing fishing effort in the MPA

FLAGs can suggest ways for fishermen to reducing fishing effort in a newly designated MPA. When an integral protected area is created, fishermen can still continue working by focusing on a different area, catching different species, and concentrating their activities in a given period.

The **Litoral Cadiz Estrecho FLAG** (Andalusia, Spain) is currently pursuing precisely this objective. Local fishermen are already playing an active role in resource preservation and have long worked with the FLAG to reduce fishing effort to allow fish stocks to recover – for example by banning fishing at certain times of year and introducing minimum catch sizes. Although there is no MPA in the area yet, the FLAG has tabled plans to create one – again with the aim of better managing and reducing fishing effort.

Expert advice

- Carry out inclusive assessments to reach a shared vision of the situation and targets;
- Foster more sustainable fishing practices, innovative projects promoted by professional fishermen (such as “**sea sentinels**” initiatives), and protected or vulnerable species counts.

Tools

- **TURF Reserve**: a special area where a group of fishermen is granted exclusive access and is responsible for working together to manage local resources, to counter the impact of overfishing in inshore fisheries.
- **Framework for Integrated Stock and Habitat Evaluation (FISHE)**: a step-by-step process for providing scientific guidance for the management of data-limited fisheries.
- Improve fishing practices (see **Factsheet 5**).

c. Diversifying fishing activities and contributing to local development

One of the core tasks of FLAGs is to promote local value as exemplified in its products and people. Fish caught in an MPA has its own intrinsic value. It represents the MPA’s brand image – both as a marketing tool and, more importantly, as a demonstration of sustainable fishing. FLAGs therefore play an important role in embedding professional fisheries in the local community, improving local seafood consumption habits, promoting local produce, and strengthening local employment conditions, especially for young people.

Expert advice

- Consider different territorial scales when designing practical responses to sectors’ economic needs;
- Report on local sector job creation and sustain and promote existing initiatives;
- Clarify FLAG funding opportunities in Natura 2000 sites and other MPAs;
- Build on the FARNET FLAG network’s experience in supporting **diversification activities**.

d. Monitoring fisheries resources and managing fishing activities

Monitoring marine resources is a vital part of MPAs' role. FLAGs can play their part in this process to ensure that resources are properly monitored in the MPA. For instance, the Iroise Marine Nature Park (Brittany, France) publishes an annual, colour-coded indicator to compare performance against targets in the management plan, per species or habitat group.⁸ FLAGs can also be involved in developing monitoring tools of this type. The resulting indicators can also be fed into assessment frameworks showing how the conservation status of environments has changed over time and, therefore, informing and improving the MPA's management policy.



The **GOBPESC** project, promoted by five *cofradías* (fishermen's federations) in Galicia, Spain, received support from three FLAGs (**Ria de Arousa**, **Ria de Pontevedra** and **Ria de Vigo-A Guarda**) to strengthen small-scale fishing governance and management in the Atlantic Islands of Galicia National Park. One of the project's main objectives was to actively engage fishermen in park water management by involving them in monitoring fisheries resources and fishing activities. Management proposals (such as setting up workable surveillance systems as agreed with fishermen) were developed using biological and socio-economic data compiled and analysed as part of the project.

Expert advice

- Make sure resources are appropriately, regularly and rigorously monitored in detail;
- Assess outcomes to check whether measures have proven genuinely effective and adjust where necessary;
- Consider scientific progress when devising the work programme;
- Suggest shared methodologies, such as evaluation tools;
- Support projects in marine conservation zones and other MPAs.

Tools

- **FISHE**.
- Assessment frameworks with indicators.
- Participatory monitoring and surveillance ([see Factsheet 3](#)).

e. Protecting ecosystems

Environmental protection measures can only be truly effective if they are planned and implemented according to a detailed program and accompanied by appropriate technical specifications. FLAGs can play their part in setting conservation targets. These targets should be specific to each protected area, since environmental and socio-economic conditions differ from one MPA to the next, even if they are home to the same species and/or habitats.

⁸ Iroise Marine Nature Park, 2017.

Another way to protect ecosystems is to set up a participatory surveillance system within the protected area, whereby fishermen play a front-line monitoring and enforcement role (such as illegal, unreported and unregulated (IUU) fishing). FLAGs can also help local people devise and implement effective systems to protect habitats of community interest, along with ways to work with fishermen on surveillance and enforcement.

For example, the **Slowinska FLAG** (Pomorskie Region, Poland) backed a **project to create new lakes** in a Natura 2000 site to promote the growth and breeding of certain aquatic species. The project was directly responsible for increasing the number of spawning grounds for Atlantic salmon, salmon larvae, and other protected fish species along the Żelkowa Woda river. In addition to financial support, the FLAG has helped the beneficiary overcome some of the bureaucratic obstacles linked with the project implementation.

Expert advice

- Work with local stakeholders to set site-specific conservation targets;
- Make sure management plans are workable, enforceable and sufficiently rigorous and ambitious;
- Help improve understanding of how human activities impact aquatic environments, and of the status of the marine environment (in line with the aims of the MSFD).

Tools

- Regulatory tools: MSFD and good environmental status ([see “Key concepts” later in this guide](#)).
- Assessment frameworks with indicators.
- Participatory surveillance and enforcement ([see Factsheet 3](#)).

f. Creating dialogue, education and awareness-raising tools

The best way to tackle a challenge or solve a problem in an MPA is to pool knowledge and skills. For instance, creating a platform where stakeholders dealing with a common challenge can discuss the issue is an effective way to help everyone reach a shared solution.

At the Guadalquivir River Delta Reserve (which adjoins the Doñana National Park), the **Noroeste de Cadiz FLAG** (Andalusia, Spain) helped set up a working group to create a permanent **structure for interactive dialogue** between fishermen, scientists, authorities and non-governmental organisations (NGOs). All stakeholders attend quarterly meetings at the FLAG’s head office. Each meeting follows the same agreed structure, and attendees discuss how to go about monitoring the reserve. Consequently, fishing activities in the reserve are managed more dynamically and, in a way, more attuned to the evolving situation in this unique ecosystem. The dialogue structure set up by the working group fosters knowledge exchange between the fisheries and science sectors. The resulting collective intelligence helps to ensure that fishing activities in this protected area are sensibly governed.

At both Natura 2000 sites and MPAs, conservation measures tend to be more effective if they are accompanied by appropriate communication and if local stakeholders – and local people more generally – are aware of their importance. As such, one of the key success factors is ensuring that local users genuinely understand the issues at hand. FLAGs can be instrumental in raising awareness among fishermen and other local users, for example by holding workshops and panel discussions. Doing so can also help FLAGs demonstrate the advantages and benefits of protected areas.

 **Expert advice**

- Involve as many stakeholders as possible in the process and hold regular meetings;
- Have FLAGs work together on topics of relevance to both professionals and MPAs;
- Directly involve all sectors in the joint management of a sea basin;
- Conduct awareness-raising and communication activities to draw attention to the issues, especially for MPAs that are open to the public;
- Create resource centres for each MPA network, along with materials containing feedback and testimony, to further an understanding of the territories in question;
- Encourage and help maritime stakeholders play their part in improving practices and raising environmental awareness.

 **Tools**

- Interactive discussion platforms.
- Governance gap analysis.
- Co-management tools (see Factsheet 1).

The figure below (Figure 2) summarises what FLAGs can do to help develop and implement bottom-up governance in a protected area.

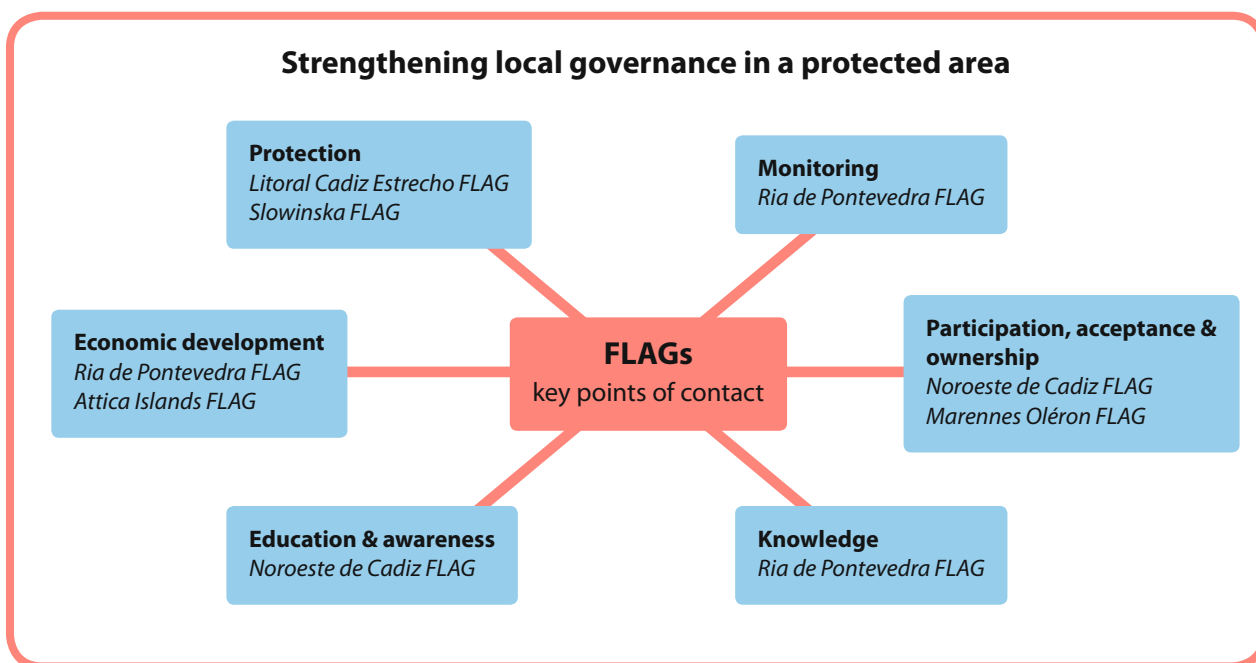


Figure 2: Possible ways to help develop bottom-up governance in a protected area

2.3 What are the benefits for fishermen and for the territory covered by the FLAG?

Fisheries sector	FLAG territory
Fishermen/fish farmers have more meaningful and regular involvement in stock and activity management	The protected area gains credibility and conditions are right for development and job-creation
Mindsets change and a culture of cooperation emerges within the fisheries sector	Fishermen/users and scientists across the territory work closely together
Fishermen feel empowered and are keen to lead by example	The territory gains prominence nationally and, in some cases, internationally

2.4 Key success factors and possible obstacles

- FLAGs should view MPAs, Natura 2000 sites and other protected areas as a real opportunity to play their part in managing fishing activities sustainably (environmentally and socially) on both the domestic and international stage. They can rise to this challenge by connecting coastal stakeholders, teaming up with other FLAGs, and getting involved in local projects.
- FLAGs can also see it as their role to build on knowledge and share experience – in other words, they can take the lead on disseminating the data and information needed to improve resource management.
- FLAGs can contribute to vital activities such as strengthening professionals' involvement, supporting flagship projects, sharing knowledge and best practice, and arranging meetings between various groups.
- FLAGs should communicate regularly and directly with fishermen to foster mutual understanding between stakeholders and prevent impasses.
- FLAGs should always look to involve and empower professionals and ensure they take responsibility for project development. These professionals should be active, represent the activity to which the project relates, be recognised by their peers, and communicate with the rest of the profession on an ongoing basis. This is the best way to ensure that the project is widely accepted and makes a real difference.

2.5 Further information

- [Marine protected areas in Europe's seas, an overview and perspectives for the future \(EEA Report N°3/2015\)](#).
- [European Commission, Frequently asked questions on Natura 2000](#). Last updated: 18/12/2017.
- [Parc Naturel Marin d'Iroise, 2017. Comment va l'Iroise? Tableau de bord 2016-2017](#).
- [Chaboud C., Galleti F., 2007. Les aires marines protégées, catégorie particulière pour le droit et l'économie? Monde en développement n°138, p27-42](#).



Factsheet 3

Monitoring local fisheries resources and fishing activities

3.1 What is this factsheet about?

By definition (as per Figure 3 and Regulation (EC) [No. 1224/2009](#)), **monitoring, control and surveillance** systems are intended to ensure compliance with the management rules and measures set out in the Common Fisheries Policy (CFP) (see “[Key concepts](#)” [later in this guide](#)). The purpose of these systems is to:

- 1) Allow data collection for managing fishing opportunities;
- 2) Monitor that only the allowed quantities of fish are caught;
- 3) Ensure harmonised application of rules and sanctions across the EU;
- 4) Enable tracing and checking of fisheries products throughout the supply chain, from net to plate.

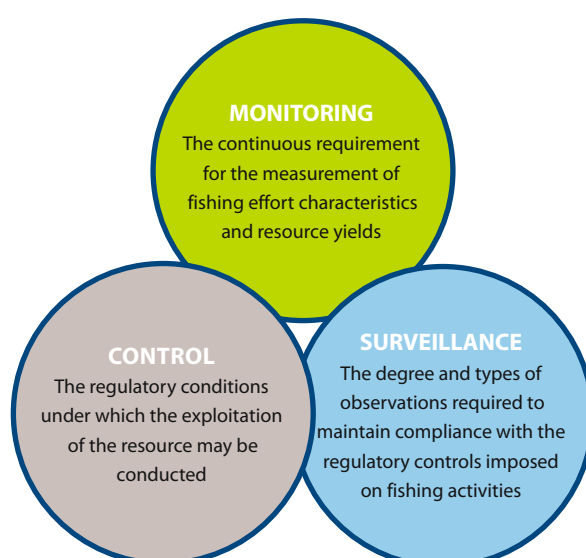


Figure 3: The fisheries **monitoring, control and surveillance** system (according to FAO, 1981)

In 2000, the EU introduced a fisheries data collection framework. Member States are required to make their own data collection arrangements at the national level, in accordance with the requirements of the CFP and Regulation (EU) [No. 2017/1004](#). The International Council for the Exploration of the Sea ([ICES](#)) uses the data collected to issue scientific advice – a vital part of stock and fishing activity management.

This statutory EU-wide monitoring may be supplemented at the local level by so-called “community-based” monitoring – a participatory process in which local operators are involved in collecting information with the aim of improving data reliability (Conrad and Hilchey, 2011). Initiatives such as these give coastal territory representatives an opportunity to play their part in monitoring fisheries resources, for example by harnessing professional fishermen’s empirical knowledge. Data gathered in this way is also vital to assessing how regulations work in practice. Community-based monitoring supports sustainable fisheries management, strengthens local adaptability (see Factsheets 1 and 2), and is a prerequisite for fisheries looking to obtain environmental certification (see Factsheet 4).

3.2 The role of FLAGs: possible options

a. Harnessing professional fishermen’s empirical knowledge

FLAGs could help compile and harness fishermen’s empirical knowledge by funding joint studies between professional fishermen and scientists looking at a specific species, stock levels and/or host ecosystems with a view to improving how they are managed or fished.

The **Langouste Rouge Reconquête** project is a prime example of this process in action. The project’s aim is to harness fishermen’s knowledge and experience to draw up a plan to restore red lobster stocks in Western Europe. Since 2015, fishermen in Finistère (Brittany, France) have been using their own knowledge and experience to coordinate bottom-up efforts to restore stock levels over a 10-year period. More than 300 lobsters have been marked and recaptured as part of the project, which brings together fishermen, professional organisations and scientists, helping to further understanding of the species’ biology and ecology. The Finistère Departmental Committee for Maritime Fisheries and Marine Fish Farming, which is a member of the **Cornouaille FLAG**, is determined to scale up the project. One way it intends to do that is by working with other FLAGs along the Atlantic and Western Channel coasts to create the right conditions for a red lobster stock restoration plan across the entirety of Europe’s Atlantic seaboard.



[Watch a video about the project \(in French\)](#)

b. Helping to develop participatory surveillance programmes

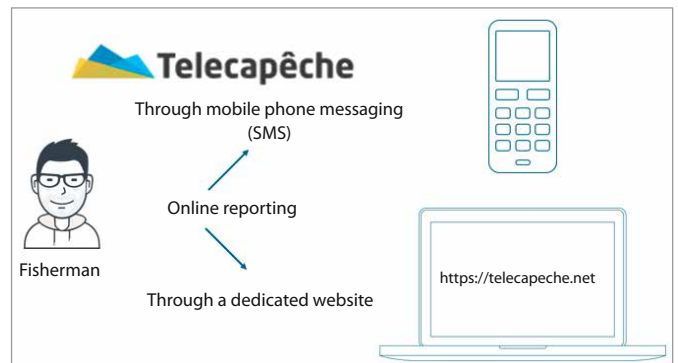
In line with their strategic priorities, FLAGs could play a key role in implementing a participatory surveillance programme. One particular project, promoted by NGO Planète Mer and funded under Axis 4 by the Varois EFF Group (now the **Varois Côte d’Azur FLAG**, France), encouraged fishermen in Cap Roux to work towards a more effective fishing ground surveillance system. The collected data were used to verify the impact of conservation measures. Because the project involved other marine area users, it drew public attention the region’s assets and the importance of protecting them.

c. Using new technologies to improve fisheries management

Giving fishermen a greater role in improving fisheries resource management and developing marine activities is an aim that may FLAGs share. Some have even harnessed new technologies to drive innovation in fishing activity monitoring.

Télécapêche is a mobile technology system that provides real-time data to local fisheries and aquaculture committees, helping them to monitor fish stocks and adopt suitable management measures. Launched with Axis 4 support in 2014, the system has proven a runaway success thanks to the joint efforts of the two organisations behind the project – the **Pays d'Auray-Vannes FLAG** (Brittany, France) and the local fisheries committee. More than 2 200 professional fishermen across several French departments are now using the versatile catch monitoring system and some, such as hand-gatherers, are using **Télécapêche** as their main catch reporting tool. France's National Committee for Maritime Fisheries and Marine Fish Farming plans to officially roll out the system to all fishermen operating along the country's Atlantic coast in the near future.

Télécapêche is a reliable and convenient sustainable fisheries management solution that has come to symbolise innovation and local creativity.



FLAGs can also play their part in developing new monitoring methods to improve seafood traceability and help combat illegal, unreported and unregulated (IUU) fishing. The **Oeste FLAG** (Portugal) supported a project to develop a **methodology for tracing the catch area of goose barnacles** and identifying potential mislabelling or poaching activity. This methodology is based on a “mineral finger-print catalogue”, which provides the mineral composition of goose barnacles from different areas of Portugal, allowing the origin of suspicious products to be identified. The project also demonstrates the benefits of science-fisheries research partnerships.

In another example, this time in Latvia's Ventspils region, an anglers' club known for its aquatic biodiversity conservation work developed a **video surveillance system** to monitor local fishing activity and combat illegal and unreported fishing. The club received assistance from the **North Kurzeme FLAG** and teamed up with an inland fishermen's organisation to install several video surveillance cameras to monitor recreational and professional fishing in key spots across the region where illegal fishing had previously been observed. The project also involved training and certifying public fisheries inspectors, as well as workshops to educate local fishermen about environmental and regulatory issues.



3.3 What are the benefits for fishermen and for the territory covered by the FLAG?

Fisheries sector	FLAG territory
Fishermen's empirical knowledge is put to good use	New partnerships emerge between fishermen, managing authorities and scientists
Appropriate management (decision-making) measures are adopted	The sector presents a more unified front and engages in dialogue with other stakeholders (managing authorities, scientists, NGOs, etc.)
Local stakeholders take greater responsibility for their actions	Fishermen play a greater role in governance and a positive signal is sent out
The traceability of local produce is improved	Consumers get greater peace of mind and local produce receives an image boost

3.4 Key success factors and possible obstacles

New technologies could help to solve many of the long-standing problems faced by the fisheries sector. However, the viability of projects like these demands advanced technology, which requires input from specialist technical (or IT) experts.

The table below provides an outline view of the main phases of a participatory monitoring project, and key aspects to consider in advance of each phase.

Phase	Questions, success factors and risks
Identify the problems/topics/activities in conjunction with fishermen/stakeholders	Is this a real problem facing the territory? Will fishermen engage with the project? Is there anyone who might be reluctant about being transparent?
State what information is needed, and in what unit of measure (€, kg, hour, etc.)	Can the information be measured quantitatively?
Draw up a sampling plan, stating what monitoring effort will be needed to achieve a given degree of accuracy, and specify what evaluation tool(s) will be used	Are you certain that this monitoring strategy will address the problem directly?
Develop the monitoring tool (smartphone app, website, paper forms)	Are future users willing and able to use this tool?
Prepare a test version and trial it with a small group of users	Find motivated users and involve them as project "promoters", ideally from the outset
Carry out the monitoring work	Hold regular progress updates to check that data is being recorded and is available and consistent
Evaluation	Check that the resulting data addresses the problem. Consider what could be improved, where needless costs could be cut, how the process could be simplified, etc.

3.5 Further information

- [Report on an expert consultation on monitoring, control and surveillance systems for fisheries management \(FAO, 1981\)](#).
- [The EU's fisheries control system](#).
- [Data collection in the EU](#).
- [Second Symposium on Fishery-Dependent Information \(Rome, Italy, 3-6 March 2014\)](#). Presentations on data collection, and on participatory and partnership methods with small-scale fishing.
- [An inventory of new technologies in fisheries \(OECD, 2017\)](#).
- [Marins Chercheurs programme by Planète Mer](#). Making recreational fishing more sustainable by encouraging fishermen to play their part in producing knowledge about species and the marine environment.
- [Abalobi initiative](#) (South Africa) and [introductory video](#).



Factsheet 4

Sustainable fisheries certification

4.1 What is this factsheet about?

The EU is the world's biggest market for certified seafood, with a growing number of fisheries moving towards more sustainable practices. While most fisheries pursue environmental certification for commercial purposes, the process itself requires them to make lasting improvements to the way they fish and how they manage the resources they utilise. Achieving certification demands a rethink of practices right across the supply chain, from net to plate.

The Food and Agriculture Organization of the United Nations (FAO) produced an internationally recognised set of voluntary [guidelines](#) in 2005 for the ecolabelling of sustainably managed fisheries.



Figure 4: Fisheries and aquaculture ecolabels

Many fisheries ecolabels (Figure 4) focus on the overall environmental sustainability of a given fishing system. The [Global Sustainable Seafood Initiative \(GSSI\)](#) recognises several certifications, including the [Marine Stewardship Council \(MSC\)](#), [Iceland Responsible Fisheries](#) and [Best Aquacultures Practices](#).

Fisheries wishing to obtain a certification are assessed against a set of pre-defined criteria, including aspects such as the fishery's impact on target species stocks, its impact on the wider ecosystem (including endangered species and marine habitats), the fishery's management process in its entirety, ethical and well-being criteria, and others.

Fisheries Improvement Projects (FIPs)

A Fisheries Improvement Project (FIP) is a concept devised by the [Conservation Alliance for Seafood Solutions](#) (a group of environmental NGOs) to address current and future challenges in the fisheries sector.

Fisheries that have yet to achieve an assessable level of sustainability, but wish to do so, can embark on an FIP. In many cases, FIPs are run by small-scale fisheries that possess limited scientific data and struggle with the certification process because of management problems or a shortage of resources. To address these shortcomings, the fishery joins forces with management organisations, scientists, NGOs, industry partners or other private financial backers (see Figure 5), all of whom have a shared interest in helping the fishery become more sustainable. Many fisheries embark on an FIP because the distributors they supply are committed to sustainable sourcing, recognise the importance of FIPs, and are increasingly buying produce from fisheries that have taken this step.

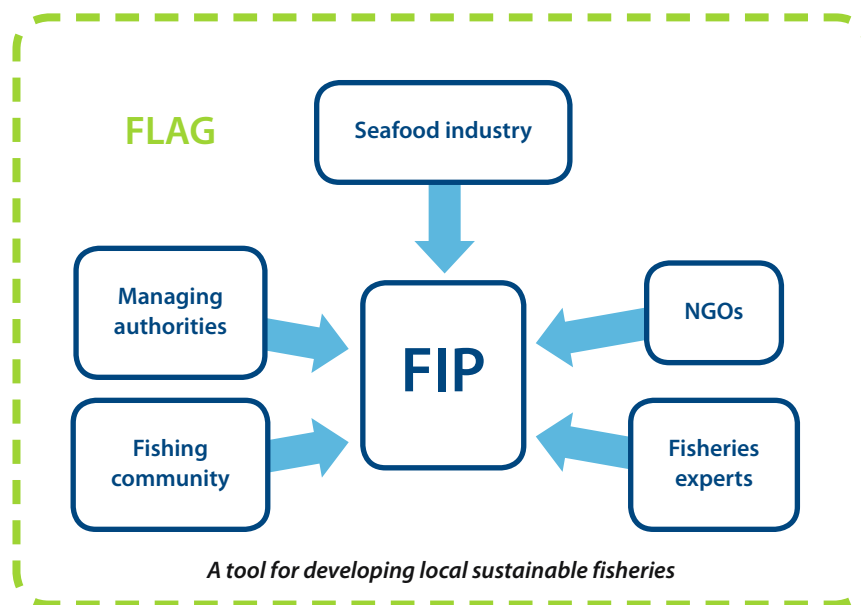


Figure 5: The concept behind Fisheries Improvement Projects

FIPs are open to all fisheries, whether their aim is to obtain certification or not. However, the process is also used to earn credibility and to allow an increasing number of distributors to use the target certification criteria for comparison purposes across their suppliers.

4.2 The role of FLAGs: possible options

a. Helping a fishery gain environmental certification

FLAGs can assist a fishery looking to obtain environmental certification or an ecolabel by coordinating and co-financing various activities:

- Characterising local fisheries interested in embarking on a certification process (mapping the characteristics, strengths and weaknesses of local fisheries);
- Educating fishery stakeholders about the certification process and creating tools to help them play their part in it;
- Working with stakeholders to determine the most appropriate ecolabel or certification for the target market;
- Preparing the fishery to extract maximum economic value from the certification, i.e. (1) determining whether the fishery is ready to obtain certification (through a pre-assessment); (2) analysing market demand for the target species; and (3) demonstrating the local fishery's know-how (arranging buyer tours of the fishery).

In Spain's western Asturias, the **Navia-Porcía FLAG** provided technical and financial support under EFF Axis 4 to help the *Cofradía de Pescadores Nuestra Señora de la Atalaya*, a **common octopus (*Octopus vulgaris*) trap fishery, obtain MSC certification**. The project, which ran for three years between 2014 and 2016, is an excellent example of this process in action. The FLAG first funded a pre-assessment of the fishery, where scientists and fishermen were involved in gathering and analysing the data. The pre-assessment showed that local octopus stocks were in good health and that the fishery was well-managed. In view of these promising findings, the *cofradía* asked the FLAG to co-finance the full assessment and the fishery was rewarded MSC certification as a result. The certification opened new commercial opportunities and pushed up the sale price by €1.50 per kilo (an increase of 29%).

In addition to providing funds, the FLAG's role in coordinating the certification process and providing technical assistance throughout made a real difference to the final outcome. It has also been heavily involved in promoting and marketing the fishery's produce, having set up an association (known as Arpesos) in May 2017 and developed a marketing strategy.

Further information

Another interesting example comes from the **Blekinge FLAG** (Blekinge County, Sweden), which supported **FiskOnline**, a project that aims to help fishermen navigate the process of achieving **KRAV** sustainability certification for several species including cod, perch and pike. The project also includes an innovative marketing component, helping fishermen sell their catch online.



Expert advice

- Build the certification project around the most highly motivated professionals. They will likely become more than mere ambassadors, and will get other stakeholders on board, or at the very least persuade them that the process is worthwhile.

b. Promoting FIPs

FLAGs have an important role to play in engaging and persuading local fisheries sector stakeholders (processors, fish traders, fishermen's organisations, etc.) and implementing an FIP.

For example, the **Orkney FLAG** (Scotland, UK) has supported an **FIP for local scallop and whelk fisheries**. Two researchers coordinate the project on a day-to-day basis, and it has already fostered plenty of discussion between scientists and local fishermen. In time, the project is expected to bring about an improved management framework for local inshore fishery stock. The FLAG has been heavily involved in working with fishermen to get them on-board with the FIP and the research project. The data gathered throughout the process (stock analysis, MSC pre-assessment, etc.), along with the new management framework, will help sustain the jobs of 297 inshore fishermen and a further 130 staff employed at processing factories.

Further information

Following the five key phases below will help to ensure that your FIP is a success.



The five key phases for a successful FIP

1. Talk about the FIP: identify the stakeholders who will need to work together to improve the fishery in question.
2. Put it in writing: agree on the project's objectives and what needs to be done to make the FIP credible, set deadlines, and have the partners sign a memorandum of understanding. Once these first two phases are complete, a technical partner will need to be brought on board to coordinate the process and keep things moving forward.
3. Draw up a work plan: the improvements, and associated measures, should generally cover a five-year period.
4. Kick off the project: publish the work plan and begin implementing the actions.
5. Monitor progress: give partners and the general public progress updates at the end of each phase, and demonstrate what outcomes the FIP has delivered and how it has been successful.



Expert advice

- › By supporting FIPs, FLAGs can encourage other seafood companies to engage with existing projects, as well as spur demand among buyers and suppliers for new FIPs targeting other fisheries with environmental problems.



Tools

- › FLAGs could also take the lead on setting up a consultation platform to serve as the main vehicle for the project ([see Factsheet 1](#)).

4.3 What are the benefits for fishermen and for the territory covered by the FLAG?

Fisheries sector	FLAG territory
Safeguards production and improves sector organisation	Maintains long-term job growth and boosts the territory's appeal
Demonstrates sustainable development best practice and responsibilities	Improves the traceability of local produce and builds partner and consumer confidence
Opens up access to new markets where there is demand for sustainably and responsibly caught seafood	Raises the territory's profile
Gives local businesses and sectors an image and reputation boost	Positively impacts public opinion around local produce
Sets local produce apart from competitors	Showcases local know-how and identity

4.4 Points to consider in advance

In many cases, fisheries cannot pursue environmental certification – and, more importantly, better evaluate stocks and improve resource management plans – without first introducing effective monitoring tools (and implementing these tools on the ground). These tools can be used to gather data (mark and recapture campaign, on-board observation programme), monitor marine activities and assess how they impact the environment.

For more information about **monitoring fisheries resources and local fishing activities**, refer to [Factsheet 3](#).

4.5 Key success factors and possible obstacles

For certification processes:

- It is vital that fishermen are heavily involved in the process from the outset, especially when it comes to deciding what type of certification to pursue.
- It is essential to gather as much information about the fishery as possible (study, mapping exercise, stock analysis, etc.) before embarking on a certification process. An FIP is a useful way to pre-assess the fishery, improve technical or governance aspects before applying for certification, and gradually bring stakeholders around to understanding the importance of sustainability.

Important

Obtaining certification is a costly process. Consequently, failure to fully appreciate market demand can undermine the project or even jeopardise the potential economic benefits of the label. Having a solid marketing plan is critical to the certified fishery's long-term viability.

- In most cases, a certification process for a single fishery should be combined with a promotional campaign or marketing strategy to showcase how the certification adds value to its produce. The resulting higher sale price will enable the fishery to become financially self-sufficient and give it the funds it needs to maintain its certification.

Important

Because financial support from a FLAG is time-limited, the entity promoting the certification project will need to explore ways to continue funding the certification in the future (including annual audit costs and any additional expenses incurred by drawing up a multi-year action plan to meet the standard's minimum requirements).

- When pursuing chain of custody certification, make sure the entire upstream sector is involved from the outset of the project. Data confidentiality issues should be pinpointed as early as possible so that compromises can be reached or data owners (industrial seafood firms) can be persuaded to release their data.
- FLAGs should also consider working with other FLAGs on fisheries certification, for two reasons: 1) some Member States share stocks of certain species; and 2) having several fisheries (from different FLAGs) cooperate is an effective way to share the cost burden of certification.

Important

In a highly competitive market (as is the case for several species), cooperation arrangements such as these are harder to achieve. It is therefore vital that fisheries engage in dialogue with one another.

For FIPs:

- Make sure sector professionals are aware that FIPs exist. Holding information meetings (for the entire sector) or printing brochures and flyers explaining how to run an FIP can prove decisive, in some cases encouraging people and organisations working in the fisheries sector to connect and work together.

Important

One of the problems facing many FIPs is finding the right lead organisation or entity – with connections in other sectors and industries – to drive the project forward. Teaming up with other entities (notably research organisations) can also have other benefits, such as ensuring that the project is underpinned by robust scientific methods.

4.6 Further information

- › Certification and sustainable fisheries (UNEP, 2009).
- › Feasibility report on options for an EU ecolabel scheme for fishery and aquaculture products (European Commission, 2016).
- › FIP HANDBOOK: Guidelines for Developing Fishery Improvement Projects (WWF, 2013).
- › Fishery Improvement Action Plans – Guidance Document (MSC, 2013).
- › Guidelines for Supporting Fishery Improvement Projects (Conservation Alliance for Seafood Solutions, 2015).

FAO publications:

- › Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries (Marine Guidelines). 2005, 2009.
- › Guidelines for the Ecolabelling of Fish and Fishery Products from Inland Capture Fisheries (Inland Guidelines). 2011.
- › Guidelines on Aquaculture Certification (Aquaculture Guidelines). 2011.
- › Report of the Expert Consultation to Develop an FAO Evaluation Framework to Assess the Conformity of Public and Private Ecolabelling Schemes with the FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries. Rome, 24–26 November 2010. FAO Fisheries and Aquaculture Report. No. 958. Rome, FAO. 2011. 51 p.



Factsheet 5

Improving practices and applying the landing obligation

5.1 What is this factsheet about?

The world's seas and oceans can only be productive if they are in a good state of environmental health, if they are able to regenerate, and if they can continue to provide the resources that human beings need to survive and thrive. Fishing, as an extractive activity, has always had an environmental impact. That will never change. So, it is important to consider how best to limit this impact.

The EU has a range of tools at its disposal to regulate fishing practices, including so-called “technical measures” governing **how, where and when fishing is permitted** (see “**Key concepts**” later in this guide). **Preparatory work** for the new EU Regulation recognised that stakeholders were not sufficiently involved in the decision-making process around these measures. Having local stakeholders develop appropriate measures is a vital part of improving practices.

It is also important to realise that innovation in areas such as fishing gear cannot address all environmental impacts alone, and that practices need to change as well.

Moreover, while some fishing gear and methods (such as passive gear) are less harmful to the ecosystem than others (such as towed nets), there is still scope to improve even the most environmentally friendly methods. In other words, all fishing vessels have room to improve.

The landing obligation, introduced by the EU as part of reforms of the CFP (Art. 15, **Regulation (EU) No. 1380/2013**), is yet another reason for fisheries to improve their fishing practices. Although by-catch tends to be less of an issue with passive gear, unwanted catches (also known as “choke species”) can still reach a level where they impede fishing activities because they push total volumes above catch limits. The landing obligation is being phased in gradually, for different species and fisheries, between 2015 and 2019 (see “**Key concepts**” later in this guide).

5.2 The role of FLAGs: possible options

a. Supporting local innovation

Local problems and circumstances call for local solutions. Innovation often happens locally, but a catalyst is needed to help turn initiatives such as these into fully-fledged projects. FLAGs are ideally placed to fulfil this role because they are in direct contact with fishermen and are sufficiently well-resourced.

The **East Finland FLAG** did precisely this by backing the development of a **system to reduce salmon by-catch** in a vendace fishery. The FLAG's support proved vital in preparing for the project, which later received funding under EFF Axis 3 (measures of common interest). Watch this **video about the project** for more information.

Business incubators are another way to foster innovation by helping project promoters turn their ideas into action. For instance, the **Cornouaille FLAG** (Brittany, France) has helped set up an **incubator for biotechnology businesses** at a fish hatchery. The incubator is the ideal place for local business owners to trial new technologies, with support from Agrocampus Ouest's biotechnology department.

b. Teaming up with academic researchers

Some coastal territories are fortunate enough to have a local branch of a university or research centre on their doorstep. But that is not always the case. FLAGs can, therefore, connect research centres specialising in relevant fields with fishermen/fish farmers looking for assistance with technical issues.

Aside from identifying the right expertise, FLAGs are sufficiently well-resourced to help fund the associated research and/or developments, whether in whole or in part. It is important to bear in mind, however, that most FLAGs have limited budgets and it is always worthwhile exploring alternative funding sources for these research and innovation programmes.

For example, Wageningen University (Netherlands) has developed a special programme for the fisheries sector. The programme, known as “knowledge circles”,⁹ aims to bring fishermen together and help them develop practical solutions to the problems they face. Fishermen play the lead role in the process, with researchers on-hand to facilitate discussions and identify solutions. Nine “knowledge circles” were created in 2014-2016, focusing on three broad themes: reducing environmental impact, increasing revenue and cutting costs.

FARNET guide 12, p. 30 “innovating with the help of science and research”

c. Working with local resource management entities

As explained in the foreword, FLAGs are not specifically mandated to manage local resources and are not destined to fulfil that role. Instead, FLAGs focus on development issues and on integrating fisheries and aquaculture sectors into local development processes. However, sustainable development cannot happen without considering the resources on which a territory is dependent. For that reason, FLAGs are right to be involved in supporting local resource management initiatives and working closely with the entities responsible for managing these resources – especially, as mentioned in the foreword, when it comes to developing technical measures.

The **Holderness FLAG**, on the north-east coast of England, worked with the area’s **Inshore Fisheries and Conservation Authority (IFCA)** to improve local lobster pot practices across the fleet. Juvenile lobsters come under attack from larger individuals when trapped in the same pot (causing injury or death). To combat this issue, pots with “**escape gaps**” were developed to allow smaller lobsters to escape. The research and trials were funded by the FLAG and coordinated by the local managing authority. The success of the trial prompted the authority to approve a local by-law requiring the inshore fleet to fit escape gaps to all lobster pots. In addition, 42 000 escape gap systems were distributed free of charge to local fishermen (funded by the FLAG).



9 In **English** and **Dutch**.

d. Fostering discussion and exchange between territories

Community-led local development (CLLD) is an effective way to develop solutions that address local issues and circumstances. There is still a risk, however, that territories might spend their limited resources (time, energy and budget) on developing solutions to problems that are similar to issues faced elsewhere. FLAGs are part of FARNET, a 350-strong network of coastal communities with a considerable body of knowledge and experience. FLAGs are a way for communities to access this body of knowledge and tap into the experiences of other territories.

The “[seals and cormorants](#)” project – a joint effort involving 14 FLAGs covering the Baltic Sea – is a prime example of how territories facing similar issues can compare experiences and share knowledge. Fishermen operating in the territories covered by these 14 FLAGs face a threat to their livelihoods from rising grey seal and great cormorant populations. Both species feed exclusively on fish, and grey seals cause extensive damage to fishing gear. The FLAGs decided to share research findings from specialist local natural resource management institutes and collate these outcomes with hands-on experience from professional fishermen, to identify new ways for professional fishermen and wildlife to coexist.

Fishermen from the [Emilia Romagna Coast FLAG](#) (Italy) and the [Camargue FLAG](#) (Occitanie, France) are also sharing knowledge about [fishing, management and marketing of the sea snail](#) (*Nassarius mutabilis*), a marine gastropod mollusc fished in both Mediterranean territories.

e. Liaising with environmental NGOs

The fisheries sector and environmental NGOs (ENGOs) are still not on good terms. Yet they often have similar aims and there is plenty of scope for finding solutions that keep both sides happy. A prime example is the “[Hookpod](#)” project, an initiative by sustainable fishing and bird protection enthusiasts connected to the UK’s Royal Society for the Protection of Birds (RSPB). Hookpod is a protection system used in longline fishing to stop seabirds and other marine animals (albatrosses, northern gannets, tortoises, etc.) becoming snagged when lines are cast into the water. The project was funded entirely by the ENGO (via crowdfunding and public donations) and developed in conjunction with fishermen around the world to end seabird by-catch. In addition to its environmental benefits, the system is also good news for fishermen because it saves them time they would otherwise spend untangling their lines, and prevents them losing their fishing gear – and, therefore, losing money. FLAGs can act as intermediaries, bringing together parties often locked in unproductive conflict.

f. Sharing information to get the sector prepared for the new landing obligation

The landing obligation is certainly the most challenging aspect of the new CFP for Europe’s fisheries sector. Although directly funding implementation of this new requirement is not part of FLAGs’ mandate, they undoubtedly have a part to play in facilitating its application locally, by sharing information with professional fishermen and working with them to better understand and mitigate the consequences.

The *cofradía* of small-scale fishermen operating out of San Martiño de Bueu harbour has done precisely this, with support from the [Pontevedra FLAG](#) (Galicia, Spain), which aims to [characterise discards](#) of the local small-scale fishing fleet. The collected data will be analysed to evaluate the impact of managing discards both on-board fishing boats and post-landing. The findings will be shared with local fishermen’s federations.

The table below outlines, in summary form, how FLAGs can play their part in this preparation process, what sector partners they will need to work with, and what success factors they will need to consider.

Key questions	Next steps according to the answer	Possible partners
1. Is this a genuine problem for the fishermen you work with? (scale of the issue)	<ul style="list-style-type: none"> ➤ Yes: continue ➤ No: stop at this stage 	Fishermen Scientists, etc.
2. Are they aware of the problem and do they know the exact wording of the regulation?	<ul style="list-style-type: none"> ➤ Yes: continue ➤ No: inform them, make them aware and, if they are supportive, continue 	Fishermen Managing authorities, etc.
<p>🔗 Expert advice: <i>FLAGs can play their part by bridging the gap between fishermen and researchers to foster innovation; The landing obligation implies behaviour change. However, it is hard to change habits and mindsets, and those with extensive experience will need to share their insights with the outside world.</i></p>		
3. Could they easily adapt their fishing practices to comply with the regulation?	<ul style="list-style-type: none"> ➤ Yes: mark out spatial and temporal zones on a map ➤ No: continue 	Fishermen Scientists, etc.
<p>Possible options for FLAGs: <i>Monitoring and mapping discards are two vital first steps, since they help to identify where discards are happening and in what quantities.</i></p>		
4. Can existing fishing gear feasibly be adapted to bring about a material reduction in discards?	<ul style="list-style-type: none"> ➤ Yes: suggest trialling alternative gear ➤ No... ➤ Conduct a literature review, and arrange a study visit to see if the same problem has been addressed elsewhere ➤ No: continue 	Fishermen Scientists (fishing technology experts), etc.
<p>🔗 Expert advice: <i>Taking fishermen to see innovative gear being used in practice is a useful way to encourage them to change their habits (it is better to observe how something works first-hand, since it is harder to see the benefits on paper).</i></p>		
5. Is there a way to improve the survival rate among unavoidable by-catches?	<ul style="list-style-type: none"> ➤ Yes: suggest a harmonised approach to handling catches on-board ➤ No: continue 	Fishermen Scientists, NGOs, etc.

Key questions	Next steps according to the answer	Possible partners
6. For species that are caught and must be landed, but where the survival rate does not justify releasing them back into the water, are there alternative uses other than direct human consumption?	<ul style="list-style-type: none"> ➤ Yes: trial new uses for these catches (create new product(s)) ➤ No: use the above as a basis for an exemption request, etc. 	Processors Scientists (agricultural engineering experts), etc.
	<p>🔗 Expert advice: Discards are not waste. Consider other possible outlets; Remember that other Member States may have very different culinary traditions and practices, and that some species that are of little commercial value in your region might be considered much more valuable somewhere else.</p>	

5.3 What are the benefits for fishermen and for the territory covered by the FLAG?

Fisheries sector	FLAG territory
Harnesses fishermen's creativity to devise innovative technical solutions (selective gear and improved by-catch survival rates)	Demonstrates local support for innovation and new technologies
Showcases how the sector is investing in modernising its production methods while upholding quality and traceability standards	Builds partner and consumer confidence in local produce
Provides alternative outlets for otherwise discarded species in other markets (e.g. animal feed, fish oil, pet food, food additives, drugs, cosmetics)	Generates wealth for the territory and helps new sectors emerge

5.4 Further information

- [International Guidelines on Bycatch Management and Reduction of Discards, FAO, 2011.](#)
- [Landing obligation in practice \(list of EU landing obligation projects\). European Commission.](#)
- [Technical measures and innovative fishing gears \(ClientEarth, 2016\).](#)

Key concepts and policies governing local resource management

A. Promoting a bottom-up approach to local resource management

The Common Fisheries Policy (CFP) was introduced in 1983, bringing in fishing quotas and setting out common principles around access to marine areas. The CFP underwent reform in 2002, then again in 2013 ([Regulation \(EU\) No. 1380/2013](#)). In its current, simplified guise, it emphasises the importance of regional features, includes regionalisation measures (long-term management plans and landing obligation), and encourages stakeholders to play a more active role through Advisory Councils (ACs).

The CFP enshrines the fundamental principles and objectives of fisheries management such as **maximum sustainable yield (MSY)** (via **multi-annual plans, Art. 9**) and the **landing obligation (Art. 15)**. However, these principles are transposed into regional regulations that apply to specific regional seas. This regionalisation model implies close cooperation between Member States sharing a regional sea (e.g. Portugal, Spain and France for the South-Western waters).

Each of the EU's regional seas (see the [European Atlas of the Seas](#)) corresponds to an area falling under the responsibility of an AC. This same concept is used in the Marine Strategy Framework Directive ([MSFD](#)). ACs bring together representatives of the fisheries sector (fisheries, processors and unions) and other interest groups (recreational fishing, environmental organisations). Their role is to advise the European Commission when drafting a proposal for a regulation. Similarly, Member States (national governments) and scientific bodies (the International Council for the Exploration of the Sea ([ICES](#)) and the Scientific, Technical and Economic Committee for Fisheries ([STECF](#))) are involved at this stage of the process.

TACs and quotas¹⁰

Total allowable catches (TACs), or fishing opportunities, are catch limits (expressed in tonnes or numbers) that are set for most commercial fish stocks. These limits are set so that stocks can be fished at the MSY, i.e. the maximum quantity of a marine resource that can be extracted, year on year, without jeopardising its natural regeneration capacity.

The Commission prepares the proposals, based on [scientific advice](#) on the stock status from advisory bodies such as ICES and STECF. Some [multi-annual plans](#) contain rules for the setting of the TACs. TACs are set annually for most stocks (every two years for deep-sea stocks) by the council of fisheries ministers. For stocks that are shared and jointly managed with non-EU countries, the TACs are agreed with those (groups of) non-EU countries. TACs are shared between EU countries in the form of national quotas. For each stock, a different allocation percentage per EU country is applied for the sharing out of the quotas. EU countries can exchange quotas with other EU countries.

EU countries have to use transparent and objective criteria when they distribute the national quota among their fishermen. They are responsible for ensuring that the quotas are not overfished. When all the available quota of a species is fished, the EU country has to close the fishery.

In the Mediterranean Sea basin most fisheries are managed by input controls only.

The way quotas are allocated to fishing fleets varies from one Member State to the next. As a rule, producer organisations (POs) are allocated quotas by the government (based primarily on past fishing volumes among their members). POs then decide, internally, how to allocate these fishing opportunities. In other Member States, quotas are allocated individually (individual quotas). These quotas may be transferable (individual transferable quotas, e.g. for offshore fisheries in Denmark and Spain) or not (e.g. Bluefin Tuna fisheries in France). In Spain, small-scale inshore fishery quotas are allocated to the regions.

Advisory Councils (ACs)

The Advisory Councils (ACs) are stakeholder-led organisations that provide the Commission and EU countries with recommendations on fisheries management matters. This may include advice on conservation and socio-economic aspects of management, and on simplification of rules. Advisory Councils are consulted in the context of [regionalisation](#). Advisory Councils should also contribute to data for fisheries management and conservation measures. Advisory Councils are composed of representatives from the industry and from other interest groups (with a 60% – 40% allocation of the seats in the general assembly and the executive committee). Their primary objective is to involve stakeholders in the fisheries sector more closely in the decision-making process. They consist of management units based on biological criteria. There are 11 such units across the EU (see the [European Atlas of the Seas](#)).

The Advisory Councils have no regulatory powers (their recommendations are non-binding). They cover a vast area and are more accustomed to working on large, shared commercial fisheries (i.e. operated by fleets from more than one Member State) than inshore fisheries (with the notable exception of transboundary fisheries). Despite this, they represent a first step towards bottom-up fishing activity management (see Figure 6).

¹⁰ Source : [European Commission website](#).

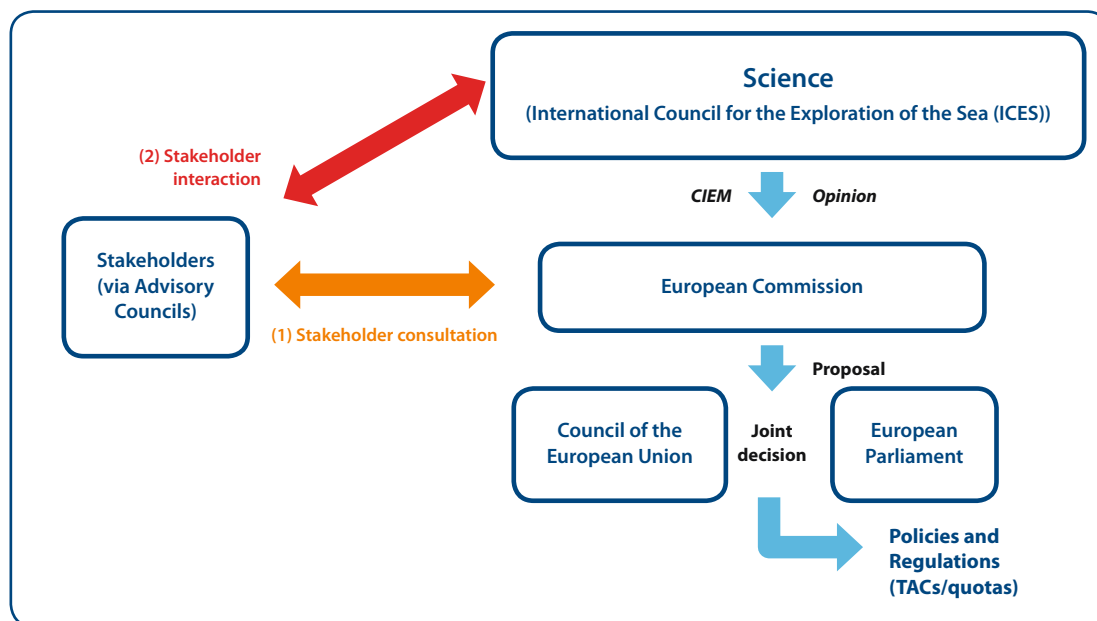


Figure 6: Positioning of the Advisory Councils in the European decision-making process of fisheries management

While circumstances at the national level vary from one country to the next, several Member States have opted to embrace sharing responsibility for managing coastal marine resources with local professional organisations. In the United Kingdom, for example, the government has delegated responsibility for managing local fishing activities to **coastal managing authorities (IFCA)**. In France, meanwhile, professional organisations (Regional Committees for Maritime Fisheries and Marine Fish Farming) are tasked with managing fishing activities along the coast.

B. Making local activities more sustainable

As stated in Art. 2, **Regulation (EU) No. 1380/2013**, the CFP “shall ensure that fishing and aquaculture activities are environmentally sustainable in the long-term and are managed in a way that is consistent with the objectives of achieving economic, social and employment benefits, and of contributing to the availability of food supplies”. In addition to quotas – resource management tools – the CFP and the EMFF, its financial instrument, support efforts to promote sustainable fishing and aquaculture activities through other instruments such as technical measures and the landing obligation.

1. Technical measures¹¹

Technical measures are a broad set of rules which govern **how, where and when fishermen may fish**. They are established for all European sea basins, but they differ considerably from one basin to another, in accordance with the regional conditions. The measures may include:

- Minimum **landing** sizes and minimum **conservation** sizes;
- Specifications for **design** and **use** of gears;
- Minimum **mesh** sizes for nets;
- Requirement of **selective gears** to reduce unwanted catches;
- Closed **areas** and **seasons**;
- Limitations on **by-catches** (catches of unwanted or non-target species);
- Measures to minimise the impact of fishing on the marine **ecosystem and environment**.

¹¹ Source: [European Commission website](#).

The technical measures regulations in the EU need to be modernised in light of the reformed CFP. To this effect, the European Commission has put forward a new framework proposal for technical conservation measures.

2. The landing obligation¹²

The landing obligation (as provided for by Art. 15, [Regulation \(EU\) No. 1380/2013](#)) states that all **catches of commercial species which are subject to catch limits and/or catches of species which are subject to minimum sizes** must be brought and retained on board the fishing vessels and counted against the quotas where applicable. Catches of species below the minimum conservation reference size and restricted to purposes other than direct human consumption must not be retained on board but must be returned immediately to the sea. Discards of prohibited species must be recorded in the ship's log and form an important body of scientific knowledge for monitoring these species. The landing obligation is being phased in gradually, for different species and fisheries, between 2015 and 2019. In 2019, the obligation will apply to all species subject to quotas and minimum conservation reference sizes for the Mediterranean.

This obligation, and the associated exemptions, are applied based on **joint recommendations of regional Member State groups**. The STECF conducts an assessment and, if the results are positive, the recommendations are transformed into temporary "discard" plans via European Commission delegated acts. These plans outline the relevant species, documentation requirements, minimum conservation sizes **and exemptions (for species with a high survival rate, along with a *de minimis* percentage of permitted discards under certain conditions)**. These plans run for three years and should ultimately be included in multi-annual plans.

Over the last few years, governments, scientific institutions, industry, fishermen and other stakeholders have worked to develop trials and solutions. Some examples of projects co-funded by the EU (such as the [DiscardLess](#) programme) can be found on the European Commission's dedicated [web page](#).

C. Supporting aquatic ecosystem conservation

The main goal of the Marine Strategy Framework Directive ([MSFD](#)) is to achieve good environmental status (GES) of EU marine waters by 2020 (see box) by placing fishing activities within the wider context of sustainable development.

The Directive requires Member States to develop a [marine strategy for its marine waters](#), in conjunction with other Member States sharing the same marine region, and to review the strategy every six years. The strategy involves a five-step process: (1) an initial assessment of the marine waters; (2) a determination of GES for the marine waters; (3) establishment of environmental targets; (4) establishment and implementation of coordinated monitoring programmes; and (5) development of a programme of measures designed to achieve or maintain GES.

In addition, the MSFD requires Member States to adopt the precautionary principle with regard to fisheries management so as to ensure that fish stocks are brought to, or maintained at, levels above those capable of producing the maximum sustainable yield, and to implement the ecosystem approach to fisheries management so as to limit, as far as possible, the negative impacts of fishing activities on the marine ecosystem.

¹² Source : [European Commission website](#).

Good Environmental Status (GES)

Marine waters are considered as being in good environmental status (GES) when marine ecosystems are functioning correctly, the environment is in good health, and human activities are environmentally sustainable. “Good ecosystem functioning” is a scientific concept that, ultimately, will need to be quantified. It takes account of pressure from water- or land-based human activities that have an impact on the environment. GES is not about restoring the environment to the condition it would be in without human activity, but rather striking an acceptable, sustainable balance between human activities and marine ecosystem health. Annex I of the [MSFD](#) sets out the 11 qualitative descriptors of GES.

How we are making it easier to achieve the good environmental status of marine waters



More flexibility to concentrate on problem areas



More accurate way to measure achievement of environmental goals



Increased regional and sub-regional cooperation



Enhanced synergy with existing EU nature, water and fisheries legislation



Better understanding of human impacts on marine environment

The MSFD also requires Member States to take spatial protection measures, contributing to coherent and representative networks of marine protected areas, by 2016. In addition, the EU is committed to achieving [Aichi target 11](#) (conserving at least 10% of coastal and marine areas by 2020), notably by creating marine protected areas (MPAs).¹³ MPAs are increasingly recognised as important fisheries area management tools, and are one of the practical measures set out in the MSFD. Moreover, both the Birds and Habitats Directives specifically mention the creation of protected areas. Further effort is therefore needed in the coming years to create more MPAs and Natura 2000 sites.

13 [Aichi Biodiversity Targets](#).



The EU Birds and Habitats Directives

The **Birds Directive** (Directive 2009/147/EC on the conservation of wild birds) and the **Habitats Directive** (Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora) are the cornerstones of European biodiversity policy.

The Birds Directive defines the guidelines at the European level for the protection and management of bird species living in the wild, focusing first and foremost on the impact of human activities (hunting, disturbance, etc.).

The Habitats Directive is the second directive for nature conservation in the EU. Among other things, it requires Member States to:

- Maintain or re-establish protected habitats and species (Annexes I and II) at a “favourable conservation status”;
- Establish special areas of conservation (“Habitat Directive areas”) for the species and habitats (Annexes I and II, Art. 3);
- Implement measures to maintain or re-establish the species and habitats listed in Annexes I and II and occurring in these areas of conservation at a “favourable conservation status” (Art. 6).

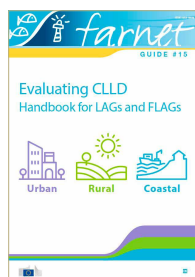
Consequently, there are two complementary principles underpinning the Birds and Habitats Directives: a species conservation system, and a network of representative sites (the **Natura 2000 network**) consisting of special areas of conservation (SACs) and special protection areas (SPAs).

In order to strengthen application of these biodiversity conservation measures, the MSFD requires Member States to devise and implement a programme of measures, as a vehicle for community action for the marine environment in “European waters”.

Further information:

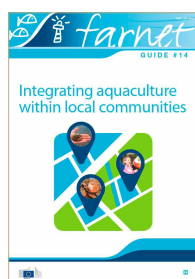
- [State of Europe’s seas \(European Environment Agency, 2015\)](#).
- [The EU Birds and Habitats Directives \(European Commission, 2014\)](#).
- [Protecting aquatic biodiversity in Europe: How much do EU environmental policies support ecosystem-based management? \(Rouillier et al., 2017\)](#).
- [Presentation by Carlos Romão: “Protected Areas. Isn’t that old-fashioned?” \(Europarc Conference 2016, EAA\)](#).

For further information, ideas and examples,
more FARNET Guides are available



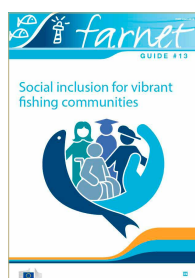
FARNET Guide #15: Evaluating CLLD - Handbook for LAGs and FLAGs

This handbook is for LAGs and FLAGs funded from one or several of the four ESI Funds as well as external evaluators carrying out LAG evaluations. It aims to provide easy-to-use tools and methods, along with examples from different LAGs and FLAGs, that can serve as guidance and inspiration for evaluating CLLD.



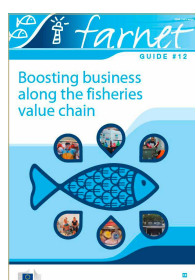
FARNET Guide #14: Integrating aquaculture within local communities

This guide is designed mainly for FLAGs seeking to improve linkages between aquaculture producers and other actors in their territories in an effort to boost societal acceptance and consumer perceptions of aquaculture, while also bearing in mind, and responding to, the great diversity of the aquaculture sector.



FARNET Guide #13: Social inclusion for vibrant fishing communities

Helping FLAGs identify different types of social inclusion issues, providing recommendations and tips on how FLAGs could address them and find solutions in their areas.



FARNET Guide #12: Boosting business along the fisheries value chain

Encouraging FLAGs to strengthen the value chains in their area and ensure that local businesses, and especially fishermen and local aquaculture producers, capture as big a portion of that value as possible.



FARNET Guide #11: Results-oriented CLLD in fisheries areas

Providing FLAGs the tools to reinforce their focus on results through the design and implementation of their local development strategies.