



**FARNET Support Unit**  
**TECHNICAL REPORT**

*FLAG actions contributing to the European Green Deal,  
including the EU's 2030 Strategy for Biodiversity*

**December 2020**



**Copyright © European Union (2020)**

Reproduction is authorised provided the source and authors are acknowledged.

EUROPEAN COMMISSION – Directorate-General for Maritime Affairs and Fisheries

Document Reference:

Authors: Janne Posti, Margot van Soetendael and Monica Veronesi

*Disclaimer: The information and views set out in this report are those of the author(s) and do not necessarily reflect the official opinion of the European Commission. The Commission does not guarantee the accuracy of the data included in this report. Neither the Commission nor any person acting on the Commission's behalf may be held responsible for the use which may be made of the information contained therein.*

**FARNET Support Unit**

Chaussée Saint-Pierre

B 1040, Bruxelles

Tel: +32 2 613 26 50

[info@farnet.eu](mailto:info@farnet.eu)

[www.farnet.eu](http://www.farnet.eu)

## Executive Summary

The European Green Deal, presented by the European Commission in December 2019, is a set of policy initiatives to make Europe the first climate neutral continent by 2050, including an EU Biodiversity Strategy for 2030, which has been described as a comprehensive, systemic, and ambitious long-term plan for protecting nature and reversing the degradation of ecosystems.

The FARNET Support Unit undertook a survey of 348 Fisheries Local Action Groups to collect information on the projects that were being supported through community-led local development (CLLD) in fisheries and aquaculture areas around Europe which contribute to the Green Deal objectives, in particular, those linked with preserving and restoring ecosystems and biodiversity; fostering more sustainable food systems; and moving to a circular economy and clean energy.

### Key findings

- 87% of FLAGs responding to the survey had supported at least one project contributing to Green Deal objectives.
- On average, FLAGs reported six projects each dedicated to Green Deal objectives. In terms of average project numbers per FLAG, France leads the way, with 12 GD-related projects supported per FLAG, followed by Finland (11) and Spain (10).
- 135 FLAGs out of the 155 that completed the survey reported a total of 1 167 projects expected to contribute to the European Green Deal objectives. Extrapolations point to an estimated 2 600 projects supported by all 348 FLAGs, so far during the 2014-2020 period, that contribute to the European Green Deal.
- The information collected reveals a total of around €72 million (total project costs) mobilised for GD objectives by the projects from the survey sample<sup>1</sup>. An extrapolation of this figure to the whole FLAG population (348 FLAGs) points to an estimated €160 million mobilised towards Green Deal objectives by FLAG-supported projects in the current period by June 2020, €96 million of this from FLAG grants.
- Projects on ‘fostering food systems with reduced food miles’ were the most numerous of those reported (172 projects); followed by those linked to ‘education and awareness-raising about ecosystems and biodiversity’ (166); eco-tourism projects (123); and projects to ‘improve the management of fish resources’ (114).
- Bringing the circular economy to fisheries and aquaculture and helping set up more effective MPAs are areas where FLAGs could potentially increase their support in the future.
- In terms of the broad GD themes covered, ‘preserving and restoring ecosystems and biodiversity’ accounted for most projects (677 projects) followed by those linked to ‘sustainable food systems’ (349 projects); with the least supported theme being ‘circular economy & clean energy’ (141 projects).
- While many FLAG projects, such as the setting up of systems to collect and recycle fishing nets, should make a direct contribution to GD themes for example by reducing marine litter. Others, such as eco-tourism and awareness-raising are more likely to have an indirect impact.

---

<sup>1</sup> This was for just 874 of the 1 167 projects as financial information was not provided on every project

## Table of contents

Executive Summary .....	3
Table of contents .....	4
Acronyms .....	4
1. Introduction .....	5
2. Methodology.....	6
3. Results.....	8
3.1 Overview .....	8
Project numbers.....	8
Financial resources.....	9
3.2 Project types .....	10
Project types in numbers .....	10
Budget per project type .....	11
3.3 Contributing to European Green Deal themes .....	13
Preserving and restoring ecosystems and biodiversity .....	14
Sustainable food systems.....	16
Circular economy & clean energy .....	17
4. Conclusions .....	18

## Acronyms

<b>BDS 2030</b>	EU Biodiversity Strategy for 2030
<b>CLLD</b>	Community-led local development
<b>DG MARE</b>	Directorate-General for Maritime Affairs and Fisheries
<b>EU</b>	European Union
<b>EMFF</b>	European Maritime and Fisheries Fund (2014-2020)
<b>FARNET</b>	Fisheries Areas Network
<b>FLAG</b>	Fisheries Local Action Group
<b>FSU</b>	FARNET Support Unit
<b>GD</b>	European Green Deal
<b>MS</b>	Member State

## 1. Introduction

The European Green Deal (GD) presented by the European Commission in December 2019, is a set of policy initiatives to make Europe the first climate neutral continent by 2050, with a zero-pollution economy. It aims to boost the efficient use of resources by moving to a clean, circular economy, cutting pollution and restoring biodiversity.

Along with the EU's Farm to Fork Strategy<sup>2</sup> and Circular Economy Action Plan<sup>3</sup>, a key pillar of the Green Deal is the [EU Biodiversity Strategy for 2030](#) (adopted in May 2020) which has been described as a comprehensive, systemic, and ambitious long-term plan for protecting nature and reversing the degradation of ecosystems. The new strategy aims to implement existing legislation more efficiently, with new commitments, measures, targets, and governance mechanisms. The Commission also recognises that the ambitious transition towards a more sustainable society laid out in the Green Deal has to be just and inclusive.

Community-led local development (CLLD) under the European Maritime and Fisheries Fund (EMFF) is a bottom-up approach to develop local responses to meet these ambitious initiatives and address some of the most pressing social and environmental challenges faced by European citizens today. The decision-making on the use of CLLD funding is delegated to local partnerships that bring together the private sector, local authorities, and civil society organisations. Known as Fisheries Local Action Groups (FLAGs), these partnerships take decisions within the framework of a local strategy, developed in response to specific needs and opportunities identified locally. In October 2020, there were 348 FLAGs operating across 19 EU Member States.

The FARNET Support Unit is the technical assistance team supporting DG MARE in the implementation of community-led local development (CLLD) under the European Maritime and Fisheries Fund (EMFF). In July 2020, the FARNET Support Unit (FSU) launched a survey for Fisheries Local Actions Groups (FLAGs) to collect information on examples of how local action, through CLLD, involves EU citizens in contributing to preserving and restoring eco-systems and biodiversity in fisheries areas; fostering a healthy and environmentally-friendly food system; ensuring cleaner seas, free from plastic and other waste; and moving towards a circular economy based on clean and renewable energies. The main objectives of this survey were as follows:

- Develop a knowledge base of what FLAGs are doing around Europe to contribute to different Green Deal objectives
- Identify the policy areas where FLAGs have been most active and where there are gaps that might be filled in the future
- Provide an approximate number of local operations and budget that have been channelled through fisheries CLLD to meet GD objectives
- Identify FLAGs that have been particularly active on Green Deal-related themes and which could be targeted through case studies on selected themes, such as preserving biodiversity, cleaner seas or more environmentally-friendly food systems.

---

<sup>2</sup> The [Farm to Fork Strategy](#) is at the heart of the European Green Deal aiming to make food systems fair, healthy and environmentally friendly.

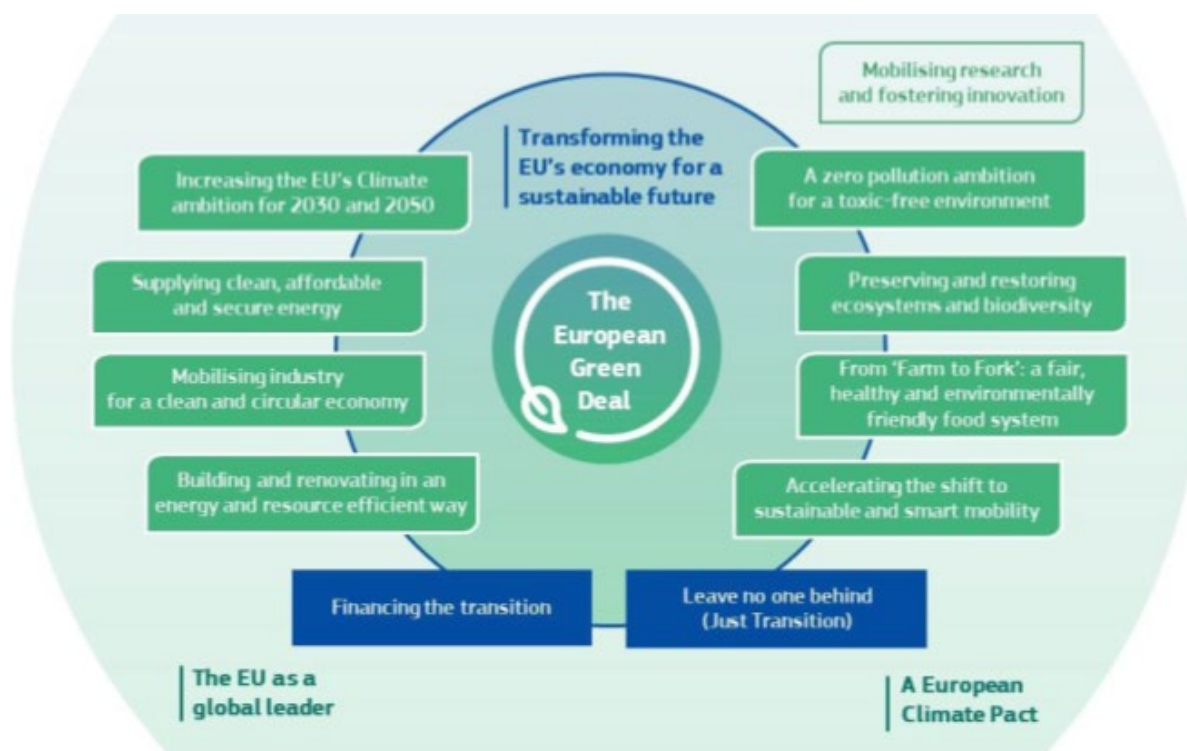
<sup>3</sup> The [Circular Economy Action Plan](#) announces initiatives along the entire life cycle of products, targeting for example their design, promoting circular economy processes, fostering sustainable consumption, and aiming to ensure that the resources used are kept in the EU economy for as long as possible.

## 2. Methodology

A simple survey was developed to collect a mix of quantitative and qualitative information. In particular, it aimed to ascertain whether FLAGs had supported actions that contribute to different GD objectives, and if so, what the actions had involved and the budget dedicated to them. In order to allow for a certain degree of comparison between Member States and FLAGs, different categories of projects were proposed. In cases where FLAGs had supported projects in the category, they were asked to complete the information with a short description of the actions supported.

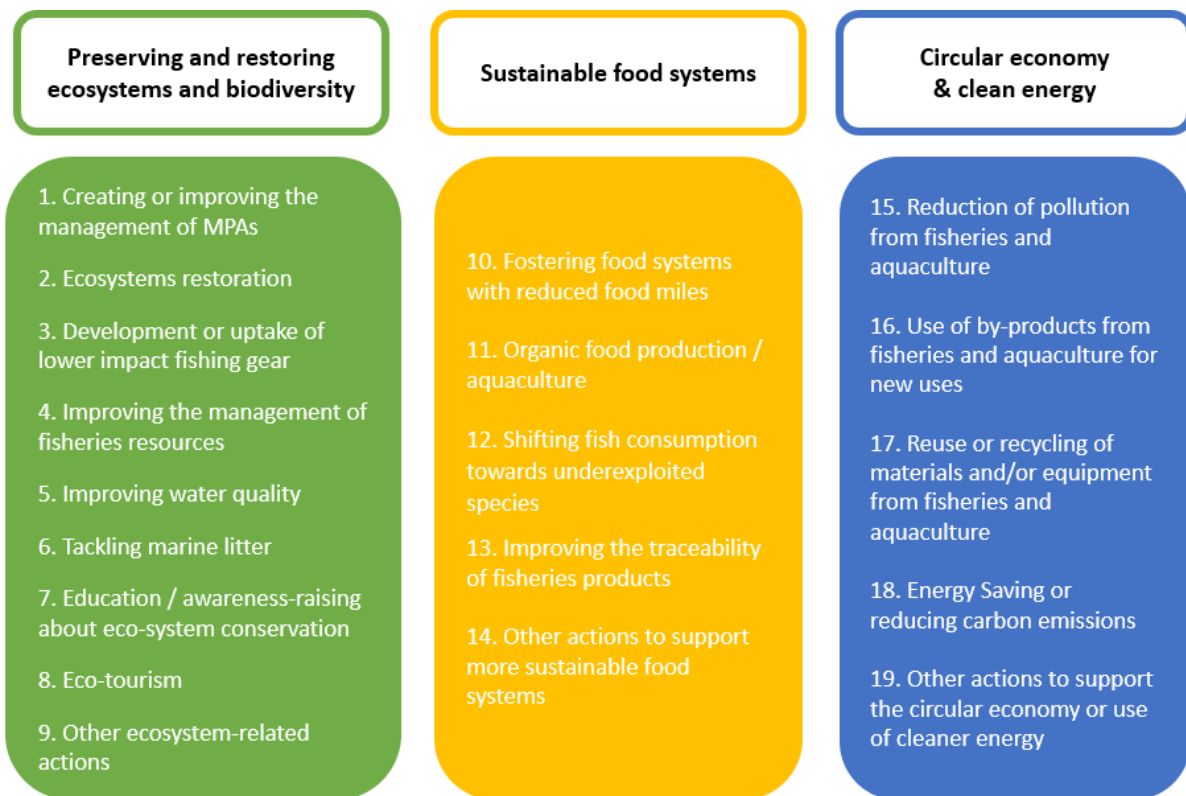
The categories of projects were based on the different elements of the Green Deal, where FLAGs have a degree of scope to intervene, for example: promoting fish with reduced food miles, which could contribute to the EU's Farm to Fork strategy; helping to set up or better managed Marine Protected Areas, to help achieve biodiversity objectives; or projects related to recycling which could contribute to the EU's Circular Economy Action Plan. Elements of the Green Deal, such as "smart mobility" or building and renovating, where FLAGs are more limited in their scope, were not included.

Figure 1. The different elements of the European Green Deal



In total, 16 categories of project were identified, which were grouped into three broader themes: 'preserving and restoring ecosystems and biodiversity'; 'sustainable food systems'; and 'circular economy & clean energy' (see figure below). An additional "other" category was included for each theme, bringing the total number of categories to 19.

Figure 2. Green Deal themes and topics covered in the survey



For each of the 19 categories above, FLAGs were asked:

- How many actions they had supported
- A short description of the actions
- The total cost of the actions
- The FLAG contribution to these actions

The data were collected by using the online surveying software, JotForm. The JotForm survey was **translated and distributed to all 348 FLAGs** by email in the following six languages: English, French, German, Italian, Polish and Spanish. In addition, the FSU team contacted certain FLAG managers by telephone or additional emails to increase the response rate.

**A total of 155 FLAGs completed the survey, a response rate of 45%** (see breakdown by country in Annex 1). The information provided offers an interesting insight into how many of the Fisheries Local Action Groups are contributing resources toward Green Deal objectives and the types of projects that are most commonly supported.

### 3. Results

#### 3.1 Overview

##### Project numbers

Of the 155 FLAGs for which data was received, 135 (**87%**) **reported at least one project contributing to Green Deal objectives**. In total, 1 167 Green Deal-related projects were reported to have been supported (or in the process of being supported) by the responding FLAGs in the current programming period. Just 20 FLAGs (13%) of the sample reported not having supported any projects linked with Green Deal objectives.

Spain (with 304 projects) and France (240) stand out for the number of GD-related projects reported, followed by Italy (139) and Poland (107). With significantly fewer FLAGs, Finland and Portugal also stand out for their relatively high number of GD projects (84 and 75 projects respectively).

Bearing in mind that these **1 167 GD-related projects were reported** by just 45% of the FLAGs in operation, we could roughly estimate that between all 348 EU FLAGs, approximately 2 500 GD-related projects have been supported in Europe's fisheries and aquaculture areas in the current programming period so far.

Table 1. Number of GD-related FLAG projects reported and average project numbers per FLAG by MS

MS	Number of FLAGs in MS	Number of Responding FLAGs	GD-related Projects	Average number of GD-related projects per FLAG
BG	9	8	24	3
CY	3	1	1	1
DE	29	10	29	3
DK	10	3	12	4
EE	8	2	14	7
ES	41	29	304	10
FI	10	8	84	11
FR	23	20	240	12
GR	33	9	25	3
HR	14	3	12	4
IE	7	1	9	9
IT	53	21	139	7
LT	12	1	1	1
LV	6	6	42	7
PL	36	14	107	8
PT	15	11	75	7
RO	22	3	7	2
SE	13	1	8	8
SI	4	4	34	9
<b>Total</b>	<b>348</b>	<b>155</b>	<b>1,167</b>	<b>6</b>

Table 1 above also shows that those responding to the survey had supported **on average six Green Deal-related projects per FLAG**. France, Finland, and Spain lead, with 12, 11 and 10 GD-related projects per FLAG respectively. Slovenia follows closely behind with nine GD projects per FLAG. From Ireland, only one FLAG completed the survey but this FLAG too reported having supported nine GD-related projects. Of, course, an average project number by FLAGs in a given Member State always hides variations, with **some FLAGs reporting over 30 projects each**.



Some of the MS reporting very few projects are those in which CLLD implementation has lagged considerably and few projects have been implemented to date. This is especially the case in Greece but also to some extent in Cyprus, Bulgaria, Romania, Croatia, and Lithuania where FLAGs have supported relatively few projects so far. In these countries, the extent to which GD objectives are prioritised by fisheries CLLD is therefore yet to be seen.

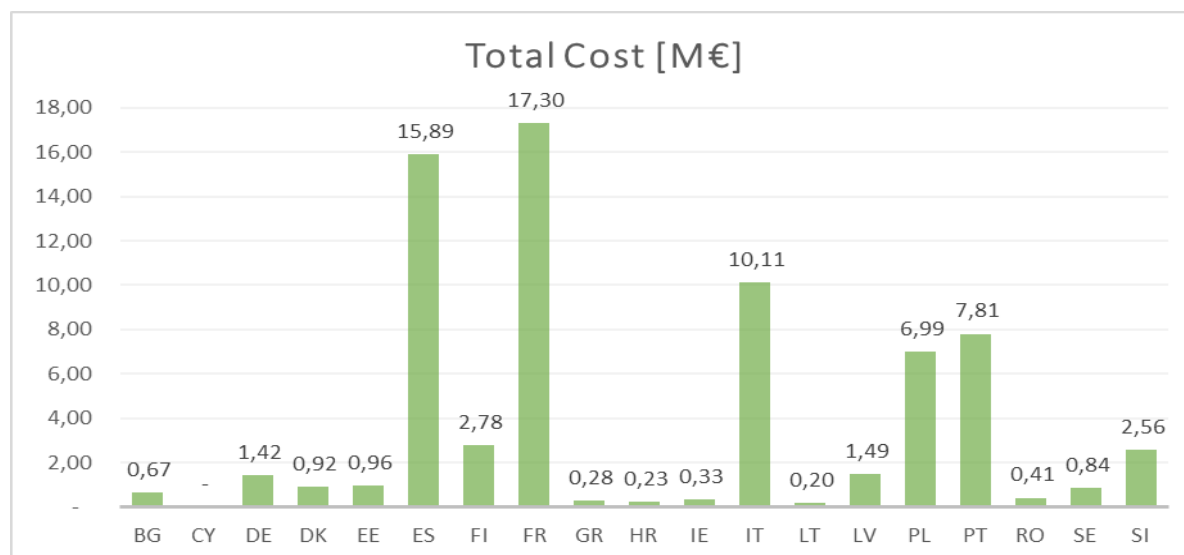
In terms of the percentage of fisheries CLLD projects that these 1 167 projects represent (or 2 600 projects when extrapolated to the whole FLAG community), the numbers can be seen in the context of the total 7 169 FLAG projects *officially approved* around the EU by the 30th of September 2020.

However, given that the survey was primarily aimed at discovering a maximum amount of information on different FLAG actions in support of GD objectives, information requested was not limited only to projects officially approved, but includes all projects selected at local level. As such, given that data does not exist on the total number of FLAG projects *selected*, it is not possible to point to a precise percentage of CLLD projects that contribute to GD objectives. The survey responses do, however, give us a very rough idea, pointing to around 25-30% of FLAG projects that lend support to the European Green Deal.

### Financial resources

In terms of budget that these projects represent, of the 135 FLAGs reporting support to GD-related projects, 110 FLAGs provided information on the total project costs and on the FLAG contribution towards these costs. In total, financial information was provided for 874 projects of the 1 167 projects reported. For 293 projects, no financial information was provided on FLAG contribution or project total costs. This can have a number of explanations: lack of time of those filling in the survey; certain projects that were reported being still in an early stage of development; and the fact that FLAG support to projects is sometimes provided as animation or other actions that do not have a clearly defined budget.

Figure 3. Total cost of Green Deal-related projects reported by the FLAGs



The information collected points to a **total of around €72 million<sup>4</sup> (total project costs) devoted by responding FLAGs to GD-related projects**, €43 million (60%) of which came from FLAG grants. If we extrapolate this figure to the whole FLAG population, we can expect that around €160 million was mobilised by FLAG-supported projects towards Green Deal objectives.

<sup>4</sup> €71 205 307 was reported. This was for just 874 of the 1 167 projects as not all FLAGs provided financial information on all projects supported.

Around €96 million of this would have been provided in grants by the FLAGs. French and Spanish FLAGs were those that devoted the most budget to Green Deal objectives, with €17.3 million and €15.9 million mobilised respectively. Italy, Portugal and Poland follow with €10.1 million, €7.8 million and €6.9 million invested in GD-related projects.

The financial information collected indicates an average cost per GD-related project of around €81 500, of which €49 000 was, on average, supported by the local FLAG. This is slightly higher than the average CLLD project cost which stands around €71 600.

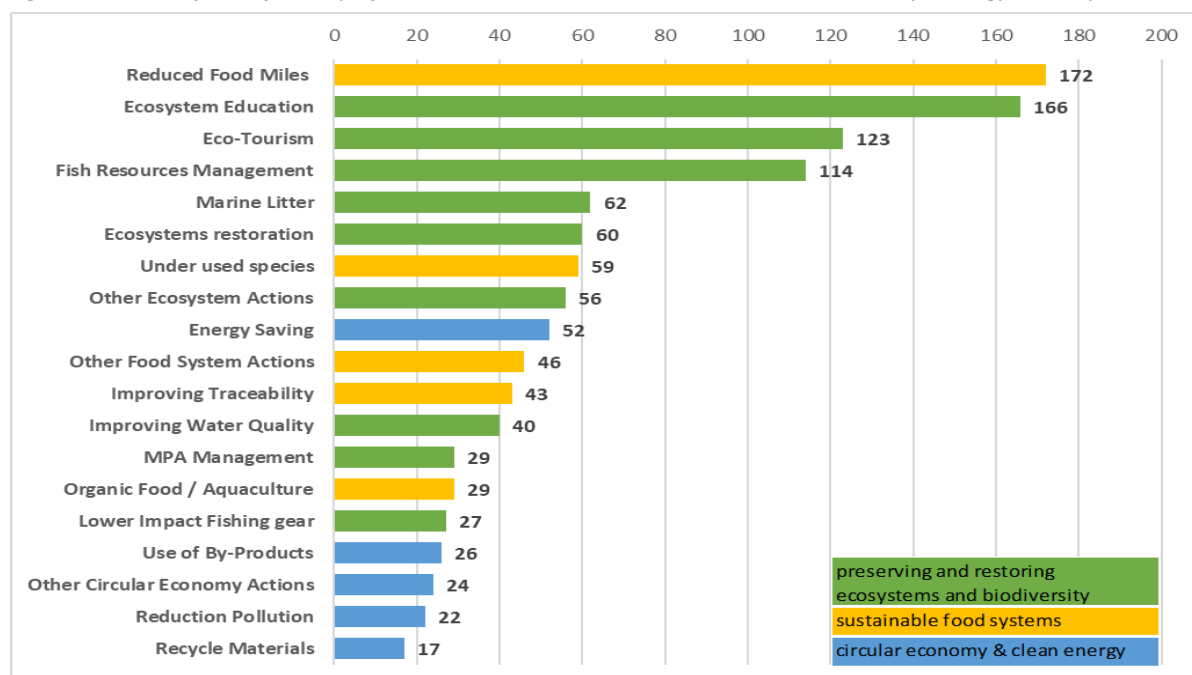
### 3.2 Project types

#### Project types in numbers

In terms of project types, Figure 4 shows the breakdown. Here we see that **promoting reduced food miles was the category that saw the most projects supported**. Of the 1 167 projects reported, 172 projects were linked to this objective, for example through projects around direct sales of local fish and other forms of short circuits such as ensuring schools serve local fish or that seafood products are processed locally rather than being shipped to third countries. These projects should contribute to both the EU’s Farm to Fork strategy as well as climate targets, thanks to reduced carbon emissions linked to getting fisheries products to market.

The second largest category in terms of number of projects were those related to **education and/or awareness-raising about eco-system conservation** (166 projects). These projects included lectures by scientists and environmental organisations for the public, summer workshops for children, cooperation between public authorities and fishermen on sustainable fishing techniques, etc. The different activities aimed to raise awareness of the importance of looking after the environment and ensuring that the behaviour of the local public, tourists, fishermen and others is as respectful as possible to the aquatic environment. This was the category with the highest number of FLAGs supporting projects on the “preserving and restoring ecosystems and biodiversity” theme, with 80 out of the 155 responding FLAGs reporting this type of project.

Figure 4. Number of FLAG-funded projects related to 19 individual Green Deal and Biodiversity Strategy 2030 topics



Eco-tourism projects and those linked to improving the management of fish resources were the other two categories that stood out for the number of projects supported (123 and 114 projects respectively).

**Projects reported under eco-tourism are varied.** They include the development and promotion of (generally speaking) low-impact tourism, including nature trails and guided tours, angling, sailing and surfing. Pesca-tourism accounts for a number of projects as does visiting the aquaculture activity, including low trophic aquaculture in Portugal and carp breeding in Poland. Fisheries interpretation centres and marine museums have also received support. It must be mentioned that while many of the projects reported can make a real contribution to Green Deal objectives, through fostering a shift towards lower-impact tourism and boosting the economic viability of conservation, others are more likely to strengthen the local economy without fostering significant environmental improvements.

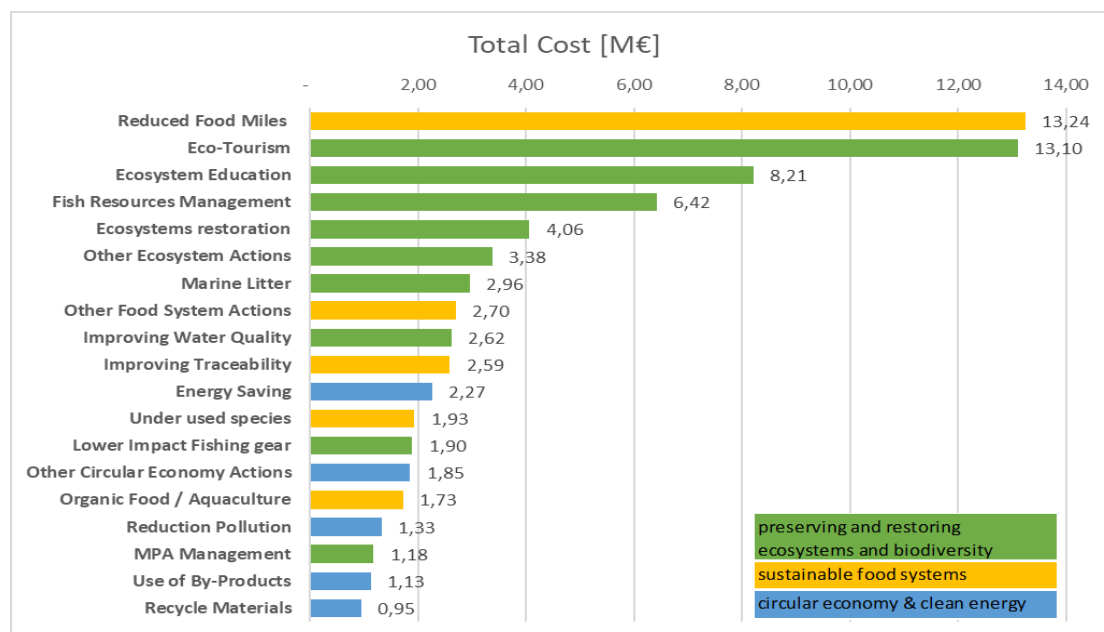
The projects reported under “**improving the management of fish resources**” are more directly linked to Green Deal objectives, in particular those of preserving and restoring ecosystems and biodiversity. Actions included, for example, mapping fishing activity and intensity and interactions with protected species and habitats; a GPS tracking system for vessels using active gear; surveillance to avoid illegal fishing; co-management plans to ensure fishing and shellfishing are organised in a sustainable way; and projects to involve fishermen in better monitoring the fisheries resource.

A large proportion of the projects reported in this category were linked to developing and testing **more sustainable fishing gear**: larger mesh sizes, trap nets instead of traditional gillnets; alternative techniques to traditional dredging for cockles; “interconnected nets” to reduce lost nets and ghost fishing, etc. This category also included the transfer of a more environmentally-friendly fishing technique from Finland to Poland through a cooperation project. More sustainable fishing gear was actually a separate category but if we include the additional 27 projects reported in that category to that of “improving the management of fish resources” where various fishing gear projects were reported, this category actually accounts for 141 local projects, the third largest group after reduced food miles and awareness raising and educational activities.

### Budget per project type

In absolute terms, the budget invested (total costs) in the different types of projects is to some extent in line with the number of projects supported in each category. The most money was invested in reduced food miles (€13.24 million), followed by eco-tourism (€13.10 million), awareness-raising activities (€8.21 million) and improving the management of fish resources (€6.42 million). In other words, although the order is a different, the top four categories in terms of project numbers, also represent the top four categories in terms of budget.

Figure 5. Total cost of project by type of project

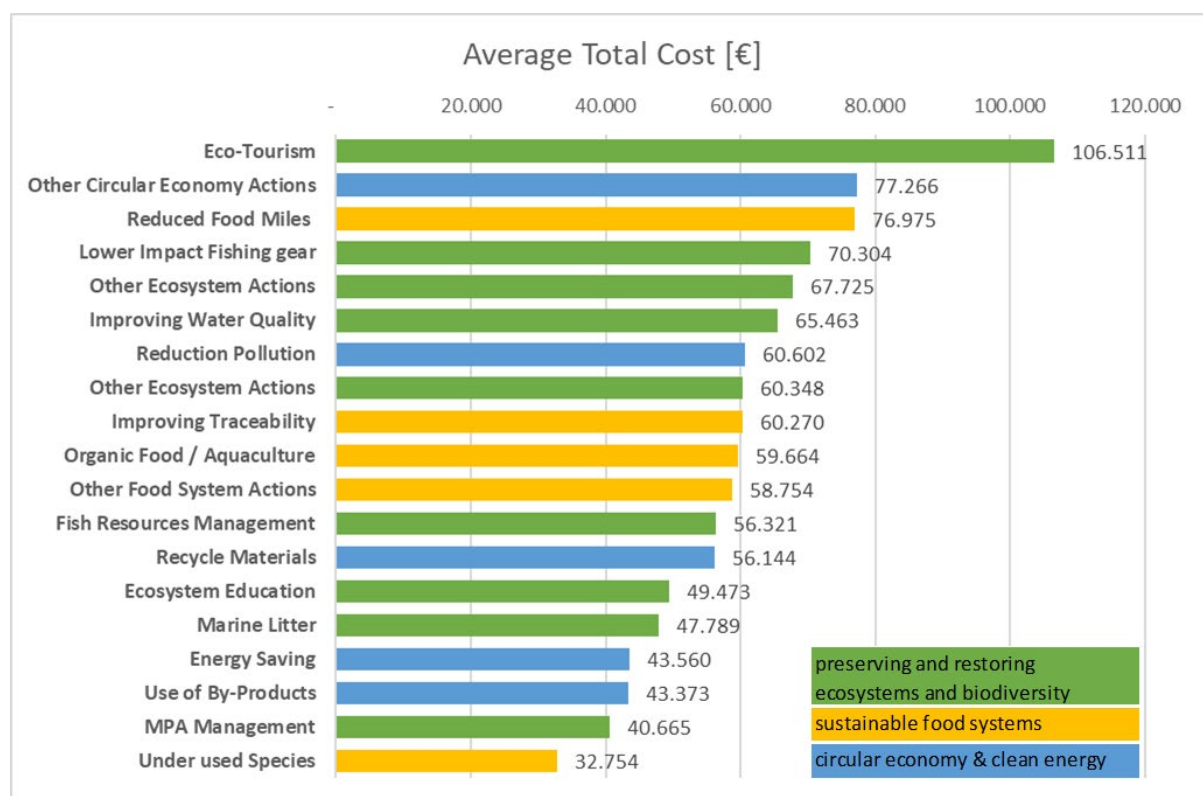


What is more interesting to look at is the average cost of project in the different categories. Here we see that **certain types of projects appear to require more resources than others**. In particular, eco-tourism activities stand out for their relatively high costs – approximately €106 500 on average per project, compared to just €32 754 on average for projects related to shifting fish consumption towards underexploited species or €40 665 per project implemented to set up or better manage marine protected areas (MPAs).

**Eco-tourism projects also involved a high proportion of investments into physical equipment and infrastructure:** boats adapted to the requirements of transporting tourists; improvements to coastal infrastructure, including fish auctions to receive visitors, observation areas, accommodation, and signposting, as well as investments into improving the natural environment. Many of these are grants to private beneficiaries, thus mobilising considerable levels of private investment.

The graph below shows that along with eco-tourism projects, “other” circular economy projects (€77 266 per project) and projects to reduce food miles (€76 975 per project), are those that tend to have the highest costs.

Figure 6. Average cost of project by type of project

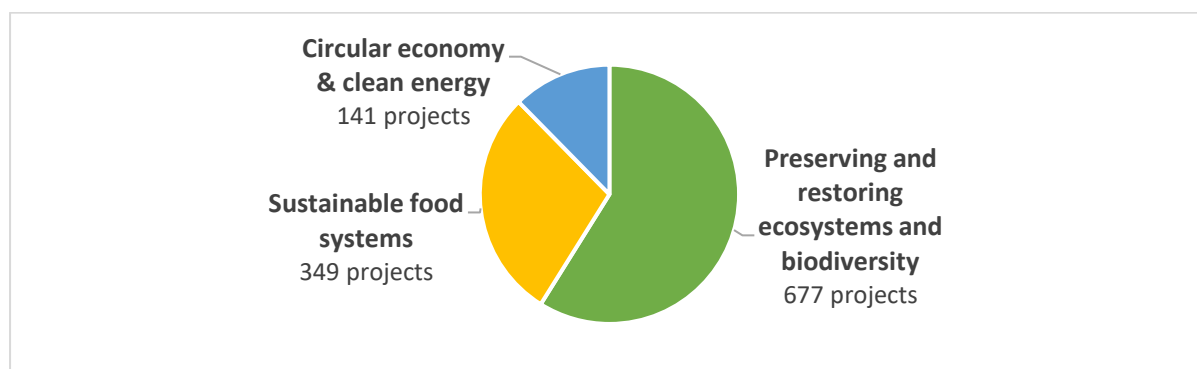


Interestingly, some of the **project types that saw the smallest budgets** are likely to contribute as much (and sometimes more) to improving the state of marine ecosystems and biodiversity as the more resource-intensive projects. Indeed, managing to secure a real shift in fish consumption away from overly popular species toward those under less pressure, alongside the creation and better management of more MPAs can have a significant impact on preserving biodiversity. Similarly, deriving value from by-products, traditionally treated as waste, along with energy saving projects are fundamental to ensuring a better use of our natural resources, thus reducing the pressure on them. Finally, projects related to marine litter were relatively inexpensive at €47 800 on average per project, and yet imply, in many cases, a direct improvement to marine eco-systems.

### 3.3 Contributing to European Green Deal themes

Based on the figures provided in the sample, the highest number of projects supported by the FLAGs fall under the broader theme of ‘*preserving and restoring ecosystems and biodiversity*’ (677 projects, or 59% of all projects reported). This was also the theme with the highest number of potential project types proposed in the survey. Projects linked to ‘*sustainable food systems*’ accounted for 349 projects (29% of those reported) while 141 projects (or 12% of the sample) were reported under ‘*circular economy & clean energy*’.

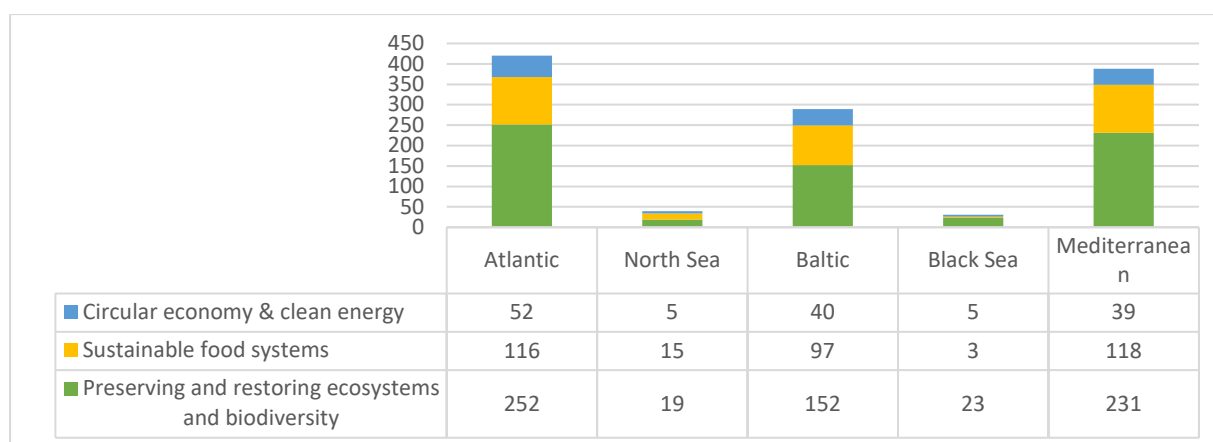
Figure 7. Distribution of FLAG-funded CLLD projects by theme



When we look at the breakdown of projects by these broader themes in the different sea basins, we see that it is similar across the five sea basins. Indeed, preserving and restoring ecosystems and biodiversity accounts for the most projects in all five sea basins - and in the Atlantic as in the Mediterranean and the Baltic is followed in second place by sustainable food systems and then projects linked to the circular economy.

The responses received from the North Sea and Black Sea FLAGs give a slightly different result for the second two themes with projects related to sustainable food systems in the North Sea reaching almost the same numbers as biodiversity projects. In the Black Sea, while biodiversity projects easily represent the biggest group of projects, unlike in the other sea basins, there appear to be slightly more circular economy projects than those related to sustainable food systems. However, the low response rates from these two basins do not allow us to draw hard conclusions on FLAG priorities here.

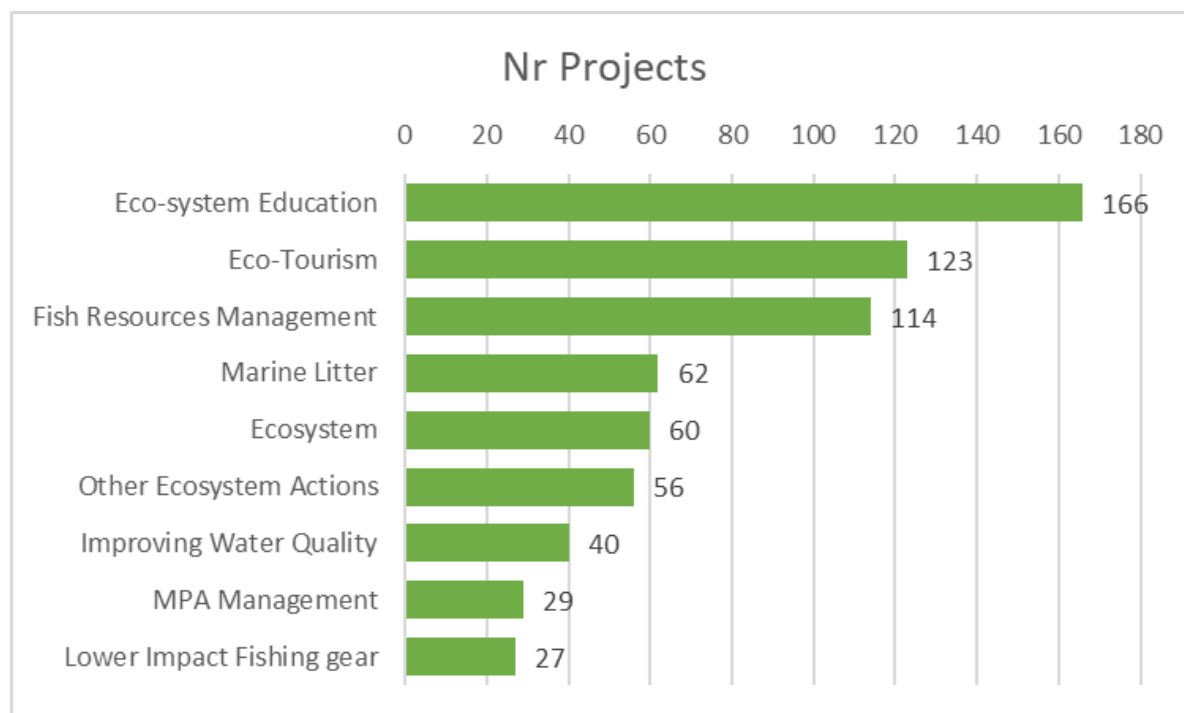
Table 2. Number of FLAG-supported GD projects by theme and sea basin



## Preserving and restoring ecosystems and biodiversity

Within this broader theme of improving biodiversity and the health of aquatic ecosystems, there are three project types which stand out for the number of projects reported: education and awareness-raising (166 projects), eco-tourism activities (123) and improving the management of fisheries (114 – or 141 if we add in those projects related to the uptake of lower impact fishing gear).

Figure 8. Number of projects per project type for theme “Preserving and restoring ecosystems and biodiversity”



While awareness raising activities and eco-tourism can both have (often indirect) impacts on the marine environment, the other categories of project are more linked to actions expected to have a more direct impact on biodiversity and ecosystems.

**Improvements to how fisheries are managed**, including the development and uptake of **lower impact fishing gear**, should contribute to reducing pressure on targeted stocks while minimising captures of non-targeted species and damage to the seabed, thus helping to protect eco-systems and safeguard biodiversity.

Tackling **marine litter** is another category with 62 FLAG-supported actions. The projects in this category include beach clean-ups, often through community action, and the mobilisation of fishers to collect litter at sea. They also involved studies and pilot actions to reorganise how waste from the fisheries sector can be better managed, and in some cases turned into a resource. Different projects address the organisation of waste disposal systems in ports, ensuring that proper channels are in place to collect and sort waste from the fishing sector that can then be sent for recycling or treatment instead of finding its way into the marine environment. Plastic was a key target of many of these operations, including obsolete fishing nets and the loss of plastic aquaculture equipment (e.g. oyster pouches). In this sense, we can say that a number of FLAGs are playing an active role in realising the [EU's plastics strategy](#).

Between them, projects to **restore eco-systems** and **improve water quality** also accounted for 60 of the reported projects. These range from projects to better understand aquatic eco-systems and plan restoration activities (e.g. of spawning and reproduction areas), to investments in machinery and equipment to undertake cleaning activities. In term of improving water quality, different projects to

identify and tackle sources of pollution, including those originating on land, were reported – especially in shellfishing areas such as the Atlantic coast of France. Other projects aimed at improving the treatment of waste-water and avoiding leakage of harmful nutrients from aquaculture into the sea, while integrated multi-trophic aquaculture was also being studied as a solution to improve marine eco-systems and water quality by moving aquaculture on land to recirculation systems. Projects involved a mix of physical investments and projects to change the behaviour of those using the marine space.

Finally, given the target within the EU’s Biodiversity Strategy for 2030 to ensure that 30% of the EU’s marine space is covered by MPAs, an important category within this theme is the **creation or improved management of Marine Protected Areas**. Just 29 projects were reported in this category which stands out as an area that warrants additional attention by the FSU to understand the scope for FLAGs to play a bigger role in contributing to this objective. Indeed just 20 FLAGs (13%) of the FLAGs responding to the survey confirmed they had supported actions linked to MPAs, including the mobilisation of stakeholders to define boundaries of marine spaces to be protected and which activities (fishing, tourism, etc.) should be permitted or restricted. FLAG support has helped to recruit outreach staff, fund study visits to successful MPAs and secure the participation of local fishers to enforce restrictions in place.

#### **A biodiversity project example from East Finland: Improving the selectivity of fishing**

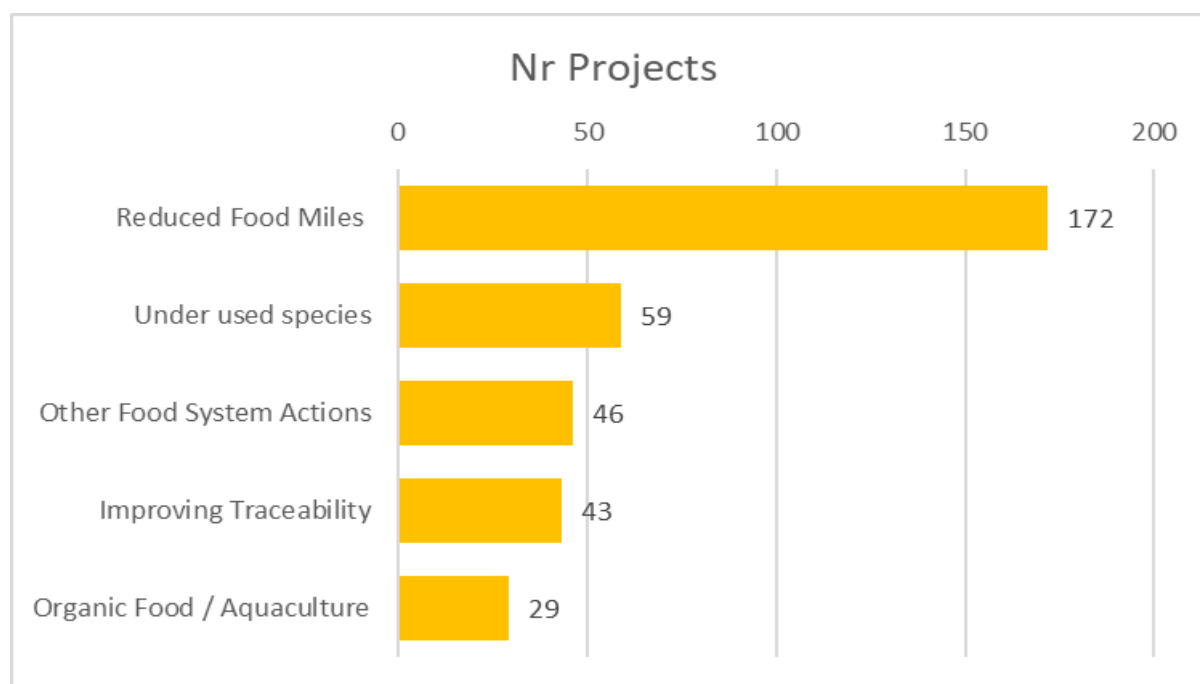
The East Finland FLAG in Lake Saimaa area has supported an innovative project to improve the selectivity of the fishing gear of the vendace trawl fishers. Vendace is a small freshwater whitefish, the main target species for the commercial fisheries in Lake Saimaa and, nowadays, mainly caught by using trawls and seines. The vendace fishery in Lake Saimaa takes relatively few by-catch species, but can sometimes encounter endangered salmonid species such as young land-locked salmon, brown trout, and arctic char.

In order to address this issue, the FLAG is supporting a local company to investigate the use of selector grids and escape gaps designed for the trawling gear to enable salmonids to escape capture. Preliminary results have been encouraging and currently the second phase of the project is ongoing, with the objective to conduct more testing and finally commercialise the selector grid and potentially expand its use in areas where the risk of salmonid by-catch is high.

## Sustainable food systems

The projects reported under this theme are those most likely to contribute to the EU's Farm to Fork Strategy. As previously mentioned, FLAGs are particularly active in promoting the consumption of **local fisheries products, via short sales circuits** (172 projects reported). Indeed, over half (79) of the 155 responding FLAGs confirmed they had supported projects in this category. Many of these projects are primarily designed to increase the revenue of local fishers, aquaculture producers and processing companies through increased sales. However, whether for environmental or economic objectives, most will contribute to reducing food miles.

Figure 9. Number of projects per project type for theme "sustainable food systems"



These projects were complemented with 59 projects to encourage the **consumption of underexploited species**, thus reducing pressure on the stocks of a few, excessively popular species, whose depletion not only endangers the targeted species but also the balance of the ecosystem of which they are part. Twenty three percent of the responding FLAGs reported projects in this area.

Improving systems of **traceability of fisheries products** also contributes to the Farm to Fork Strategy and accounts for 43 different local projects, many of which are innovative in nature. These focus on improving the quality, sustainability and information available regarding the source of fisheries products, for example through the use of QR codes to identify the fisher that caught a given fish, the type of gear used and where it was fished. By building links between the consumer and the producer/fisher, these projects often reinforce a consumer shift towards more local and/or sustainable products.

Support for **organic aquaculture** was indicated by 17 of the 155 FLAGs responding, which between them supported 29 different projects. These included support for organic carp in Poland, mussels, and goose barnacles on the Atlantic coast, as well as various projects to develop and promote seaweed products and coastal plants such as samphire. Sustainable aquaculture is an important pillar of the EU's Farm to Fork strategy, one for which FLAGs could potentially increase their support in the future; however, more in-depth research would be needed to understand to what extent and how.



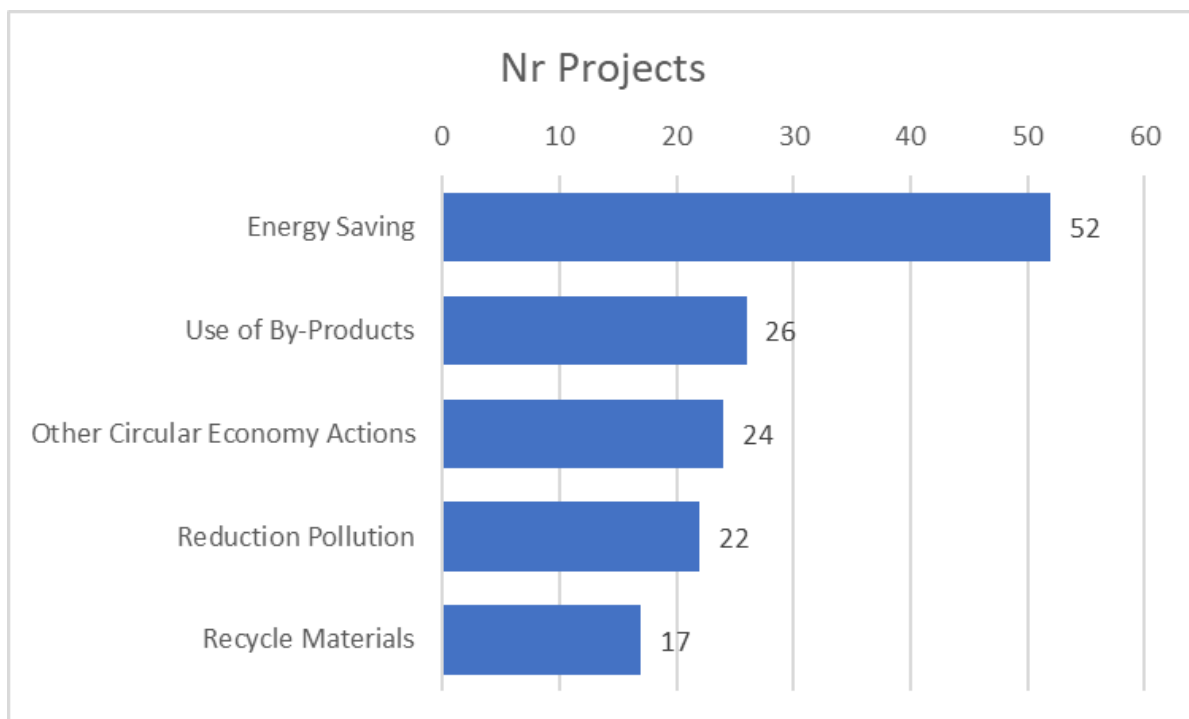
### A sustainable food system example from Spain: From fish auction to plate

The Safor FLAG, in the Spanish Mediterranean, funded a dynamic restaurant on the top floor of the local fishing organisation in the port of Gandia. It prioritises fish from the local fish auction, including undervalued and commonly discarded fish, which are now on the menu daily. The restaurant has a glass viewing area on one side that allows customers to watch the fish auction that takes place below every afternoon, thus reconnecting the public with the fishing activity.

### Circular economy & clean energy

The circular economy is a relatively new area for many FLAGs so it is perhaps not surprising that this theme accounts for fewer projects than those linked to sustainable food systems and eco-system conservation. In terms of decarbonising Europe's economy, while the scope of FLAGs is limited to small-scale projects, as the survey illustrates, FLAGs can contribute at their level with small steps in the right direction.

Figure 10. Number of projects per project type for theme "circular economy & clean energy"



Energy saving projects and those to reduce carbon emissions were, in fact, the most popular type of projects under this theme with 52 different projects supporting a **reduction in carbon emissions or of energy use** in general.

They included projects to equip fishing organisation buildings with solar panels, wind turbines and/or storage batteries to reduce their dependence on fossil fuels. Others involved the conversion of boats to electric engines and the construction of a charging station for electric boats.

Twenty-six projects were reported to support the **use of by-products from fisheries and aquaculture**. These included market studies and R&D for new (often processed) food products from fish waste and by-catch. For example, one project supported the use of water used to cook octopus and the otherwise discarded octopus heads to make "croquettes"; another aimed to use farmed trout livers in new products. Another FLAG had supported studies to use specific biomolecules from fish skin and eyes, and also shellfish shells for cosmetic and pharmaceutical purposes. Another group of projects

involved the mapping and planning of new supply chains based on mussel and oyster and shells. As well as projects to organise the collection and storage of such shells, FLAG-supported projects have also discovered new uses for crushed shells, such as concrete made from crushed mussel shells.

Few projects (just 17) were reported under “**reuse or recycling of materials and equipment from fisheries and aquaculture**” and this stands out as an area where FLAG could increase their support and of which the average project cost was amongst the lowest. Several projects, especially in France, aimed to ensure the collection, sorting and recycling plastic from old fishing nets for newly designed products. Another FLAG was studying possibilities for creating a new value chain from used oyster pouches. In parallel, an important area of work emerging are projects that look to avoid the use of plastic-based equipment in the first place. For example, one FLAG was studying alternatives to the polystyrene boxes typically used to transport fish, while research into alternatives to using plastic film on crates for shipping oysters was also being explored.

#### **A circular economy example from Brittany, France: Obsolete fishing nets for new uses**

The Brest FLAG in France, provided support to a start-up company Fil & Fab to develop the first French recycling network for old fishing nets. Previously across France, the vast majority of old fishing nets were sent to landfill, incinerated, or shipped abroad for recycling. Fil & Fab decided to develop a more sustainable and local recycling solution for these nets. For the past three years, Fil & Fab has been working with its partners to set up a responsible collection system in harbours of the area. Once collected, a local social enterprise (Les Genêts d'or) sorts, cleans and crushes the nets into a nylon powder ready for reuse. Fil & Fab have developed a technique to transform this new raw material into plastic sheets, which are then used to create a series of new plastic products. With a grant from the FLAG, Fil & Fab was able to invest in the equipment required for these processes, creating a successful company and three full-time equivalent jobs. To date, over 100 tons of fishing nets have been recycled and sold by the start-up.

## **4. Conclusions**

This survey of FLAG support linked to Green Deal objectives shows that Fisheries Local Action Groups are helping to contribute to Europe’s vision to restore biodiversity while becoming a zero-pollution economy and the first climate neutral continent by 2050. Indeed 87% of the FLAGs responding to the survey had supported at least one project in support of GD objectives and on average FLAGs had supported six GD-related project each.

Most projects supported by FLAGs are small-scale in nature and, as such, the contribution of each is relatively small in the face of the urgency of the environmental challenges facing society and the ambitious objectives set. However, change is needed at all levels and this growing number of local projects can certainly make a difference.

Some are already having a direct impact on the state of eco-systems and biodiversity by developing and assisting the uptake of lower impact fishing gear and aquaculture methods. Others are helping to improve marine eco-systems by identifying sources of pollution and taking measures to improve water quality. Over half of FLAGs are working to encourage a shift towards the consumption of local fisheries and aquaculture products, while boosting traceability and rebuilding links between the consumer and its local primary sector.

Besides those projects with a direct (even if small) impact on the environment thanks to reduced carbon emissions and a more respectful exploitation of natural resources, most FLAGs are working in some form or another to raise awareness of these themes among local companies (including fishers

and aquaculture producers), tourists and the general public. These types of projects, for example education in local schools, community events and the development of an attractive eco-tourism offer, all help set the conditions for a shift towards more sustainable production and consumption habits.

The survey was designed to give a broad overview of different themes that FLAGs are working on. This it has delivered. However, to develop a more profound understanding of some of these projects, further research would be needed. Case studies, for example, of those FLAGs that are particularly active on Green Deal-related themes could look further into the extent to which these projects are making a difference (results); the barriers they face in engaging with global challenges such as biodiversity loss or marine litter; and how to transfer good local practice to more FLAGs around Europe.