



FARNET Support Unit
TECHNICAL REPORT

FLAG Support to Women in Fisheries and Aquaculture

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Executive Summary

This study forms an understanding of the representation of women working in FLAG areas and assesses the level and types of support FLAGs provide to these women. The findings add to the wider understanding of the number and roles of women working in the fisheries and aquaculture industry and analyses how FLAG support to women varies and is implemented. FLAG support to women is defined as (1) a project with a female project promotor, when the project is privately invested and/or (2) other FLAG activities where the primary objective is the support of the women in the FLAG area.

Key findings:

- In FLAG areas, women account for 27% of the combined fisheries and aquaculture value chain. They account for 13% of the fisheries primary sector, 26% of the primary aquaculture sector and 51% of the industry's processing sector. These figures support existing statistics, and for the first time, are comprised from one comprehensive dataset.
- In most FLAG areas, 15% of the fisheries supply chain businesses rely on the unpaid support of women.
- In the 2007-2013 programming period under Axis 4 of the EFF, there were 13 363 FLAG projects of which an estimated 1 179 were focused specifically on the supporting women (9%) equating to a conservative estimate of €65 million in FLAG funding.
- The share of FLAG projects focused on supporting women in fisheries is expected to increase by 5% from those under the EFF in the 2007-2013 period.
- An estimated 1 851 projects, 14% of all FLAG projects (approximately 13 219), in the 2014-2020 period will be focused specifically on the support to women in fisheries and aquaculture under the EMFF.
- The proportion of women at decision-making levels (FLAG boards), directly correlates with the number of projects FLAG specifically target towards supporting women fisheries and aquaculture.

Based on the results of the survey, three case studies were conducted with FLAGs who showed significant support to women in fisheries and aquaculture. The case study findings are added throughout this report complementing and offering a more in-depth look at the factors influencing the support of FLAGs to women in fisheries and aquaculture, and thus a broader knowledge of the subject.

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Acronyms

CLLD	Community-Led Local Development
DG MARE	Directorate-General for Maritime Affairs and Fisheries
EFF	European Fisheries Fund (2007-2013)
EMFF	European Maritime and Fisheries Fund (2014-2020)
FARNET	Fisheries Areas Network
FAO	Food and Agriculture Organisation
FLAG	Fisheries Local Action Group
FSU	FARNET Support Unit
EIGE	European Institute of Gender Equality
STECF	Scientific, Technical and Economic Committee for Fisheries
MS	Member State

1. Introduction

Many researchers have noted that there is an under-representation of gender approaches in fisheries policy and literature (Frangoudes, 2013; Kleiber et al., 2015; Gustavsson and Riley, 2018). While fisheries are widely considered a male dominated industry,¹ women play a significant role in the industry, representing around 27% of the workforce in the EU seafood value chain. However, the role women play is largely undervalued, and information on the topic is somewhat limited (STECF, 2013; Vervaele, 2014). The situation is similar for Community-Led Local Development (CLLD). Even though some Fisheries Local Action Groups (FLAGs) have been instrumental in supporting women in fisheries/coastal communities, information on the extent of their support is unavailable. This report analyses the information garnered from a survey of 353 FLAGs on their support to women in fisheries and aquaculture areas, to which 113 responses were received (31%).

Accurate and reliable statistics on both the number and sex of workers in the seafood industry are lacking and the area is relatively under-researched (Zhao et al, 2013; FAO, 2015). Based on the information provided by 83 countries in 2008, the Food and Agriculture Organisation (FAO) estimated that 5.4 million women work as fishers or farmers in the industries primary sector, representing an estimated 12% of all employment, either full or part-time (FAO, 2008). In a 2012 SOFIA report, the FAO estimated that this figure had increased to 15% (FAO, 2012).

Taking a closer look at the EU, it is difficult to estimate female employment levels in the seafood industry as information varies substantially depending on the data source. Eurostat (2012) offers a figure of 12% across the 28 MSs (European Union 27 plus Croatia at the time of publication).² However, full datasets are not available for all MSs, making the information somewhat unreliable.³ A separate study conducted by the Scientific, Technical and Economic Committee for Fisheries (STECF)⁴ indicate female employment figures for aquaculture and processing as sub-categories of 28% and 57% respectively, as of 2009. Other sub-categories, such a catching (the primary sector), were not calculated and as a result, total industry percentages are not offered (STECF, 2012; 2013).

The European Parliament in 2014 estimated that 100 000 women work in fisheries and aquaculture across all MSs (EGIE, 2017). No previous study has analysed representation of women in fisheries from a FLAG perspective. Nor has any previous research fully assessed the support FLAG provide to women working in the industry, or indeed, FLAG areas. The present study addresses this research gap by analysing a sample of 31% of all FLAGs which report a total female employment in the industry of 16 695 accounting for around 17% of the estimated total female employment in the sector (100 000). The following analysis is based on this sample from which extrapolations are made.

¹ Most fisheries and aquaculture enterprises are owned and managed by men. Labour in the fisheries sector, on board fishing vessels, for example, is predominantly provided by men (STECF, 2013; EIGE, 2017).

² Eurostat database on fisheries (available at: <http://ec.europa.eu/Eurostat/web/fisheries/data/database>).

³ Information based on the hypothesis that female employment equals the total employment minus the know male employment. The figures are therefore unconfirmed. Some MSs, such as Spain, are also excluded from the comparison.

⁴ STECF is a body appointed by DG MARE. Its members consist of qualified scientific experts in fisheries technology, marine biology and ecology, fisheries science and economics.

2. Methodology

2.1 Survey of FLAGs

A questionnaire, consisting of 21 questions, was designed to determine the extent of past and current FLAGs support to women in the fisheries industry, with the aim of providing a comparative analysis, while also revealing good practice examples. The questions used in the survey can be found in Appendix A. The survey was designed in three main sections. The first was developed to ascertain basic information on the industry and the proportionate share of women working in the sector. The second and third sections were designed to establish FLAG support to women in the 2007-2013 and 2014-2020 programming periods respectively. An online version of the survey was developed using the survey software, JotForm.

A link to the online survey was emailed to FLAGs managers using the MailChimp email marketing platform in six languages: English, French, German, Italian, Polish and Spanish. To encourage the participation of FLAGs in the study, FARNET Support Unit (FSU) geographical experts, managing and regional authorities, and national networks were asked to promote the survey.

The sampling frame for the study was the 353 FLAGs which have an operational email address⁵. A total 118 responses were received and following the deletion of empty (1) and duplicate (4) responses, a final sample of 113 FLAGs was established; a response rate of 32% and a sample accounting for 31% of the total population. The following analysis is based on information received from the final sample of 113 FLAGs, from which interpretations are made. In certain instances, when making data comparisons, a multiplication factor has been used to provide a more accurate estimate of the 353 FLAGs which comprise the sampling frame. As a result, occasionally, the final sample from which inferences are offered is reduced. The 113 survey responses represent 17 of the 20 MSs who have active FLAGs. No responses were received from Cyprus, Finland and Slovenia. The data was analysed using IBM's SPSS 22.

When analysing the data, it is important to keep in mind that information was provided by FLAG managers on employment in fisheries (including the proportion of women employees in the different sector) and, especially, on the unpaid work of women in fishing businesses are rough estimates based on the FLAG manager's knowledge of the sector, as such data are usually not available.

2.2 Qualitative case studies

Following the collection of the primary survey data, three FLAGs were selected for further study based on their support to women in fisheries. Field visits to the three FLAGs in Croatia, Estonia and Spain were conducted. The criteria for selecting these case studies were related to the amount of past and current projects which are specifically focused on the support to women, the amount of the total FLAG budget these projects represent, their objectives and level of priority. To form a comparison, it was deemed advantageous to select a FLAG from each of the three main sea basins, the Atlantic, Baltic and Mediterranean.

⁵ The total population of all FLAGs is 368.

2.2.1 The Hiukala FLAG

The Hiukala FLAG has a relatively small population of only 9 580 island inhabitants and is one of eight Estonia FLAGs. The FLAG territory covers the island of Hiiumaa, also known as Hiiumaa county, in the Baltic Sea and Estonia's second largest island, is predominantly forested and has a coastline of 326 km. Of the nine family-run fisheries businesses in the area, three rely on the informal work of women in the family. Women account for just under half (48%) of all activity auxiliary to fisheries such as sales and administration. 50% of employees in the area's fisheries processing are women, while only 2% of fishers are female. Of the 127 FLAG funded projects between 2007-2013, 24 (19%) were specifically focused on the support to women. Similarly, of the 100 projects forecasted between 2014-2020, 14% are focused on women, accounting for 15% of the FLAG's total budget of €2.9 million.

2.2.2 The Costa da Morte FLAG

The Costa da Morte FLAG stood out as a FLAG with a significant percentage of women working in its fisheries sector. Women account for 10% of the area's fisheries workforce, 40% of the total employment in aquaculture and 75% of the sectors combined processing activities. In total, an estimated 1 000 women work in the area's fisheries and aquaculture industry. In the 2007-2013 programming period, the FLAG had a total budget of €9M, of which an estimated €1.62 million (18%) was focused on projects in support of women. In the current programming period, the FLAG budget has decreased to €7.3 million but the percentage spend on projects in support of women remains the same (18%) and will be focused on up to 12 projects with objectives such as capacity building and training, the visibility and representation of women, diversification and adding product value.

2.2.3 The Plodovi Mora FLAG

The Plodovi Mora (which only started its operations in 2018) emerged from the survey as a FLAG with a significant focus on supporting women working fisheries and aquaculture. Women are of key importance in the fisheries sector, especially marketing and processing. The area has around 160 family-run small-scale fisheries-related enterprises, around 50% of which are owned or managed by women. So far, the FLAG has only funded two projects in the preparatory phase, one of them focusing on women running small-scale processing operations. The FLAG expects to finance ca. 50 projects in the 2014-2020 programming period and around 14 of them are going to focus on support to women, representing an estimated 25% of the FLAG's total budget.

3. Results

3.1 Employment of women in fisheries and aquaculture

By assessing the support of FLAGs to women in fisheries, the present research goes some way to addressing the lack of data on women employed in fisheries and aquaculture. 77 FLAGs provided estimated total employment figures for their area and 103 FLAGs offered estimations on the number of the women in the industry. In total, these figures represent 16 605 women working in fisheries and aquaculture, a 17% sample of the estimated female population working in the industry based on the European Parliaments (2014) figures.

The data collected were divided into four sub-categories of fisheries, aquaculture, processing and activities auxiliary to fisheries⁶. FLAGs were provided with definitions and examples of each category in the survey. Table 1 shows the estimated number of women working in each of the four categories based on the information provided by FLAGs, and Table 2 illustrates the percentage share women represent of the total estimated employment of each of the sub-categories. The sample size for each sub-category varies based on available information provided by FLAGs.

Table 1: Female employment per segment of the fisheries and aquaculture industry in FLAG areas

Fisheries (n=61) ⁷	Aquaculture (n=43)	Processing (n=45)	Auxiliary (n=48)	Combined
3 565	2 006	5 071	6 053	16 695

Table 2: Female share of estimated employment per industry segment

Fisheries (n=61)	Aquaculture (n=43)	Processing (n=45)	Auxiliary (n=48)	Combined
13%	26%	51%	36%	27%

Based on these figures, the data provided by FLAGs largely correlates with the previous studies conducted by FAO and STECF. The present data offers a figure of 13% for the share of female employment within the fisheries primary sector which sits in between the global figures offered by FAO and is comparable to the Eurostat study, which indicated a figure of 12% across MSs. For aquaculture and processing, the present research finds slightly lower figures than those offered by the STECF. However, again, they are comparable. Table 3 relates the present research with the available secondary data.

⁶ Auxiliary to fisheries for this study refers to activities such as selling, net-mending/making and administration.

⁷ Sample size refers to the number of FLAGs who provided full datasets for each sub-category.

Table 3: Data comparison of female employment in EU fisheries and aquaculture

	Fisheries	Aquaculture	Processing	Auxiliary	Combined
EUROSTAT	12%	-	-	-	-
STECF	-	28%	57%	-	-
This study	13%	26%	51%	36%	27%

Previous comparisons between the data provided by Eurostat and STECF have proved unreliable in providing a combined figure for the total employment of women in fisheries and aquaculture as a combined industry due to the data being reconstructed from two separate and incomplete sources; the data used for MS comparisons did not always correlate. Frangoudes (2013) cross-checked the Eurostat/STECF data sets and revealed that from the available information, women hold approximately 63 000 jobs, equating to 27% of all jobs in fisheries, aquaculture and processing combined. Using one comprehensive dataset, the present study confirms this figure, offering an estimate of 26.57% for the share of female employment in the sector. Additionally, the present data offers further insight by adding activities auxiliary to fisheries to the discourse, providing a more detailed look at the employment landscape of the secondary sector.

Broken down by MS, comparisons can be made (Table 4). For processing activities, the combined representation of women in fisheries is 51%. However, in some MSs it is relatively high; Denmark (66%), Estonia (58%), Lithuania (70%), Romania (61%) and Sweden (80%⁸). While these percentages are comparatively high, it is important to also consider total employment figures when drawing any conclusions. For example, while women only account for 26% of processing employment in Spain, they represent just over half of the samples' total number of women working in fisheries processing in FLAG areas. Therefore, while these estimated percentages offer an initial landscape of women working in fisheries, factors such as population size and location must also be taken into consideration. For example, the Costa da Morte FLAG situated in Galicia has a much higher percentage of women working in processing activities (75%). This figure represents an estimated 1 000 women working in the area which has a large processing sector. Furthermore, the case study in Plodovi Mora FLAG in Croatia established that women account for 90% of the fish processing workforce. Interestingly when comparing the two case studies, in large organisations with more complex management structures in the Plodovi Mora FLAG area, women are often found in management or specialist positions due to their higher level of education. In contrast, in the Costa da Morte FLAG area this is not always the case with the activities of women often described as not being considered a 'profession' at all.

Finally, for activities auxiliary to fisheries and aquaculture, the aggregate representation of women is 36%. For FLAGs located in the Baltic, this representation of women is high, for example, Estonia (69%), Latvia and Sweden (80%⁹). The figures offered by FLAGs in Spain for auxiliary activities are high at 40%; representing 82% of the total sample.

⁸ Based on a small sample size so figure may be inflated.

⁹ Based on a sample size of only six women so figure may be inflated.

Table 4: Female share of estimated employment per Member State (MS)

MS	Fisheries	Aquaculture	Processing	Auxiliary
Bulgaria (BG)	1%	0%	43%	13%
Croatia (HR)	3%	11%	49%	-
Cyprus (CY)	-	-	-	-
Denmark (DK)	0%	18%	66%	26%
Estonia (EE)	6%	-	58%	69%
Finland (FI)	-	-	-	-
France (FR)	8%	21%	44%	29%
Germany (DE)	3%	37%	45%	37%
Greece (EL)	12%	2%	26%	14%
Ireland (IE)	1%	-	-	-
Italy (IT)	1%	28%	40%	25%
Latvia (LV)	1%	-	5%	63%
Lithuania (LT)	9%	35%	70%	47%
Poland (PL)	7%	7%	4%	17%
Portugal (PT)	0%	-	-	-
Romania (RO)	5%	17%	61%	18%
Slovenia (SI)	-	-	-	-
Spain (ES)	19%	40%	60%	40%
Sweden (SE)	6%	0%	80%	80%
United Kingdom (UK)	1%	19%	42%	20%
Total	13%	26%	51%	36%

3.2 Female support to small-scale family-run businesses

Several studies have explored the ‘invisible’ role of women in fisheries (Britton, 2012; Frangoudes, 2013; Zhao et al., 2013; Gustavsson and Riley, 2018; Salmi and Sonck-Rautio, 2018). These hidden roles often relate to the support women provide to small-scale family-run businesses. While the available secondary employment data offers some insight into the numbers and activities of women visible in the industry, it does not consider the invisible role of many women in the sector. Reported statistics are often based on work which is remunerated and therefore declared while many small-scale enterprises rely on female support through activities such as management and administration (accounting, banking, etc.) which are largely unpaid, yet significantly important. Many mothers, daughters, partners and spouses therefore play an active role in the industry, while not being officially employed leading to their absence from many industry statistics (Britton, 2012; Frangoudes, 2013).

In the present study, to form a better understanding of the representation of women in fisheries families, FLAGs were asked for approximate information on the nature of small-scale family-run businesses in their area and the way in which women support such businesses despite not being formally employed. The purpose of this investigation was to form an understanding of the role of women in fisheries families as no research to date has established the significance of this unpaid support.

72 FLAGs provided an estimated percentage of the number of small-scale family-run businesses, in their area, reliant on the unpaid support of female family members. Over 50% of the sample reported that more than 15% of the businesses rely on the unpaid support of women. As illustrated in Figure 1, 31% of FLAGs estimated that 36 to 40% of businesses rely on such support and a further 26% reported an estimation of 16 to 35% of businesses. The figures provided on the number of businesses reliant on the unpaid support of women was high in the Mediterranean. In Greece, Spain and Italy nearly all FLAGs identified the number of family-run businesses relying on the support of female family members as between 36 and 40%.

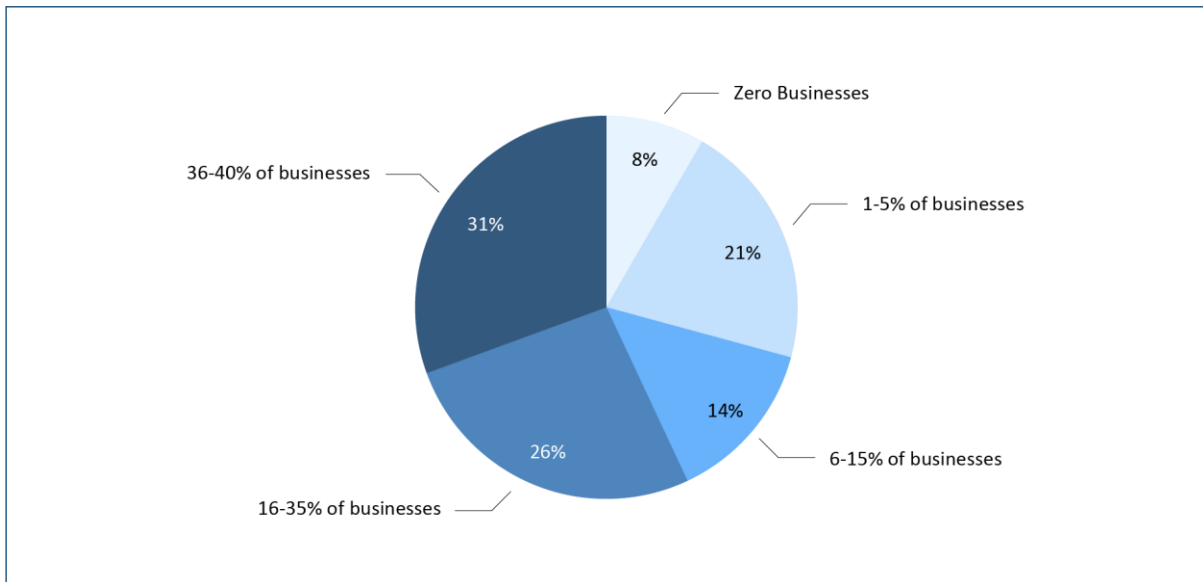


Figure 1: Share of businesses in FLAG areas reliant on the unpaid support of women

Based on the information provided in the wider survey of FLAGs, the nature of the ‘invisible’ support provided by women in fisheries families is hard to determine and quantify. Therefore, the role of women in family-run fisheries families and how they are supported by FLAGs was a focus of the three qualitative case studies as the field visits allowed for more direct responses and perceptions from key stakeholders including women in receipt of the support. In the Hiiukala FLAG area, small-scale fisheries are significant to the livelihood of many families in the Estonian province of Hiiumaa and are of major importance also to the local community. Many coastal fisheries families process their own catch, adding value through marketing, hospitality and tourism. Despite their role often being considered ‘invisible’, women are typically central to these activities. Funding applications are nearly always written and developed by the female family members while the main beneficiary is listed as the man of the family. This significant contribution to the business and indeed the wider FLAG area, once the project is action, is not recognised in the sectors national statistics, or anywhere for that matter.

A similar dynamic was observed in the Plodovi Mora FLAG area, where it is generally felt by respondents that the work of women in the fisheries sector is very often ‘invisible’, and it is still believed to be a male-dominated sector. It is often stressed that women are at least as well educated as men, and their competence, particularly regarding fish processing is widely acknowledged. In technical discussions, the opinion of women often prevails (e.g. in board meetings of the fishing cooperative). Even when the men catch the fish, it is often women who own and manage the business, they have a reputation of being ‘stricter’ than their male counterparts. There is a parallel between the Hiiukala and Plodovi Mora FLAG areas which shows that women take a more administrative role in terms business operations and funding applications, two significant roles in terms of development and ongoing success, but roles that are often ‘hidden’ and in terms of family run businesses, not remunerated.

Over all three case studies, the contribution of women to the family commitments was concurrent. As reported by several respondents in the Costa da Morte area, women in Galicia have always had to work to contribute to the household as life has never easy in what is a remote part of Spain. Galician women are very proud of this and will not easily ask for help nor easily recognise they need any. This attitude is also echoed in Hiiumaa, Estonia. Women in Hiiumaa indicated that supporting the household was important to the family business as it allowed the men of the family to spend the longs

hours at sea for fishing activities and obtaining a good catch. Many people in Croatia say that a woman holds up three corners of the house and the man one, but in Kali the saying is that the woman holds up all four, because in addition to housework, children and job she also must be involved in fishing, managing the fishing business or fish processing. While this is true of many industries, an underlying theme across each of the three case studies is that for fisheries, these family responsibilities tend to overlap with those of the family business.

3.3 Representation of women in FLAGs

All 113 FLAGs provided information on the structure of their organisation and board structure. There is no significant gender inequality for FLAG managers throughout the sample, with women representing 47% of all FLAG managers. (Figure 2).

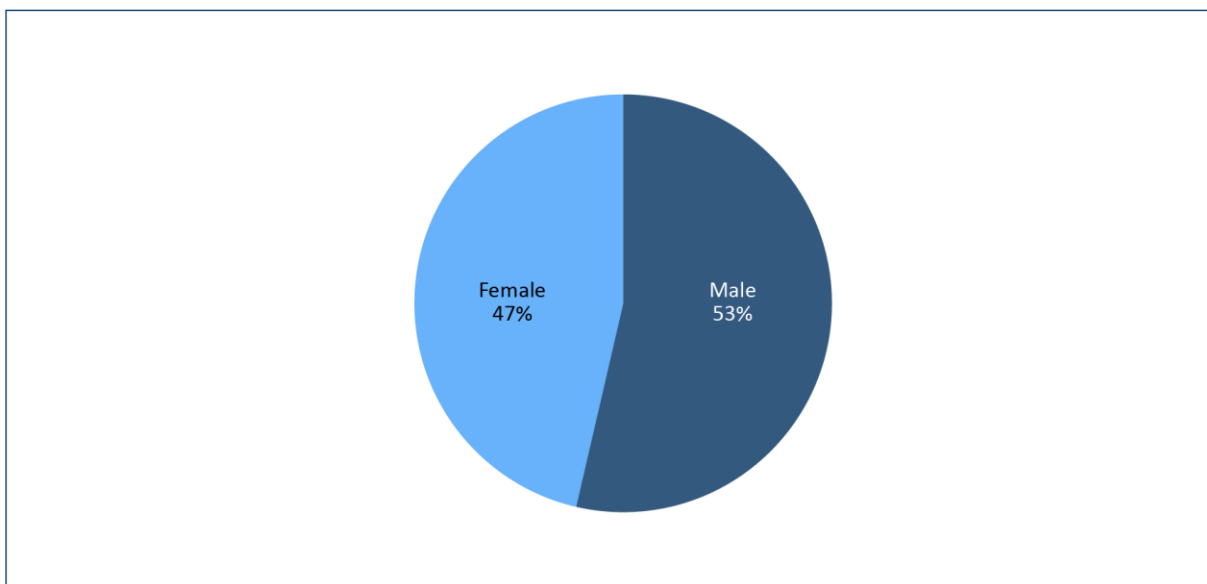


Figure 2: Gender equality of FLAG managers across the sample

112 of the responding FLAGs provided information on their board members. Unlike the gender equality of FLAG managers, on FLAG boards women are clearly underrepresented (Figure 3) with women only representing 26% of all FLAG boards' members.

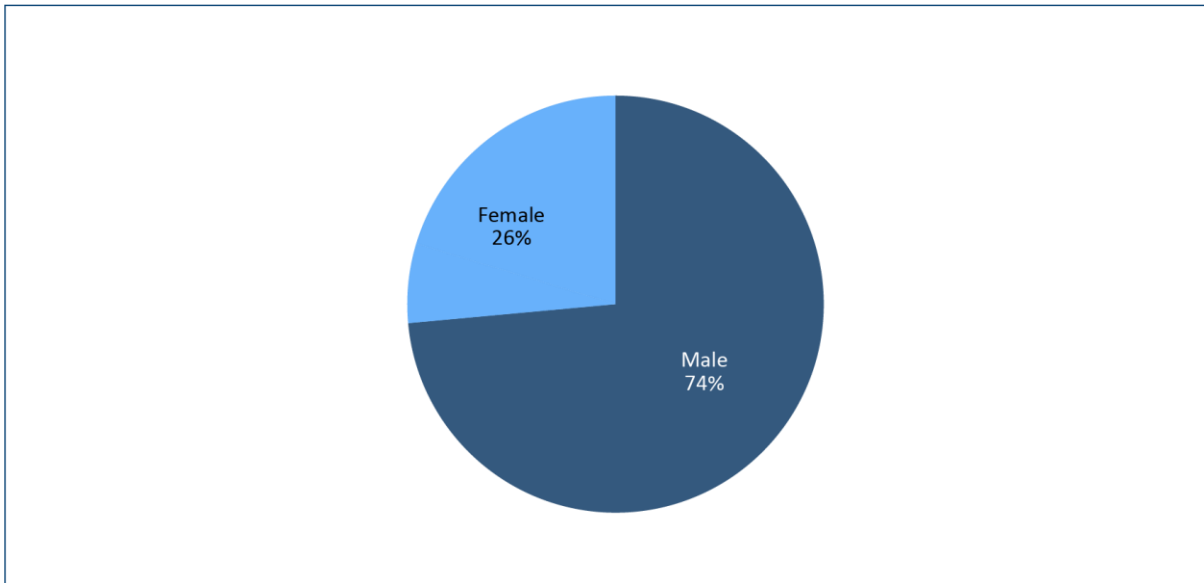


Figure 3: Percentage of women on FLAG decision-making bodies across the sample

Figure 4 offers further insight into the representation of women on FLAG boards. The mean number of members on a FLAG decision making body is 15, with a range of five board members to a maximum of 53. The mean number of women on FLAG boards across the sample is four. Considering the sample average number of board members is 15, FLAG boards with only five female members or fewer are high at 65%.

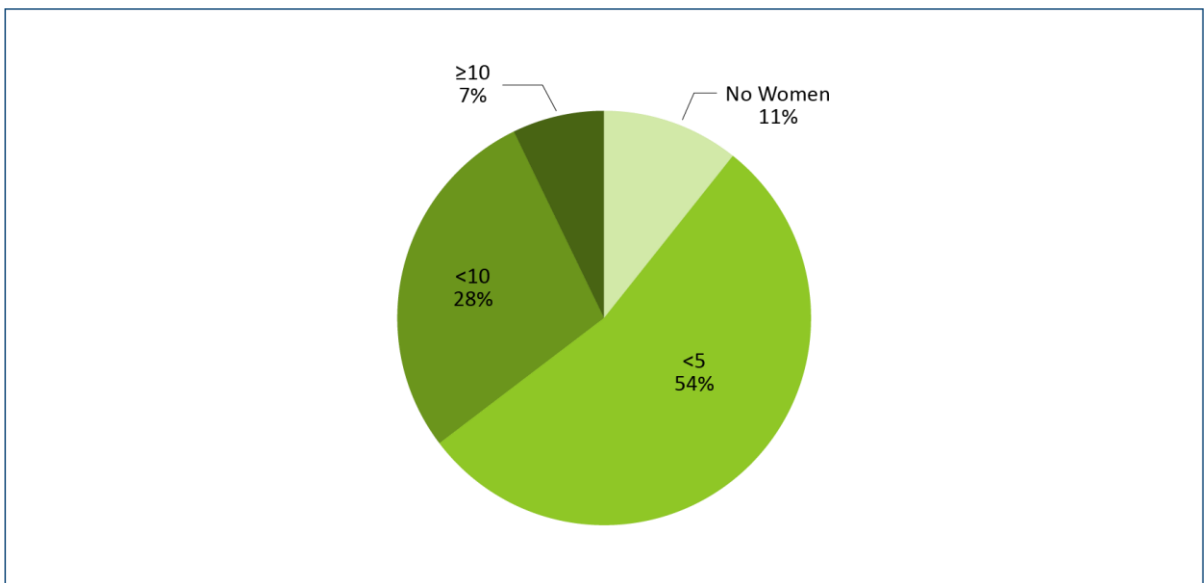


Figure 4: Number of women on FLAG boards

11% of FLAG boards include no women at all, a further 54% include five women or fewer and 28% fewer than 10 but more than five women. Only 7% of FLAGs have more or equal to 10 women on their board. Considering that the average number of board members is 15, the representation of women is relatively low. Furthermore, the FLAGs among the 7% with 10 or more female representatives tend to have larger boards. For example, the Lake Võrtsjärv FLAG in Estonia and the Arcachon, La Rochelle and Thau FLAGs in France all have boards of 40 representatives and more; and despite these FLAG boards having 10 or more women, women still only account for less than 30% of all board members.

Gender equality on FLAG boards differed significantly across the three case studies. The decision-making board of the Costa da Morte FLAG is composed of 21 members out of which six are women, representing 28%. So, in terms of numbers, there appears to be a gender imbalance, but female interviewees stated that they did not feel underrepresented at the FLAG's decision-making level as they reported being able to clearly influence the decision-making process. In the Hiiukala FLAG area, the opposite is true where women feel highly underrepresented. The Hiiukala FLAG board comprises seven individuals, of which only one is female, representing 14% of the FLAGs decision-making body. Again, there is a clear gender imbalance. Furthermore, based on the interviews of all stakeholders, the one current female board member is seen as a rare and unprecedented case. The daughter of a famous and prominent fisherman on the island, and a licensed fisher herself, the female board member in question is coming to the end of a three-year period on the board, and if not re-elected, general opinion suggests that she is likely to be the last female board representative for the foreseeable future. In the Croatian FLAG Plodovi Mora the situation is more balanced; three out of seven members of the board are women.

While women in the Costa da Morte FLAG feel they have a strong influence over decision-making and the ability to block projects, the same cannot be said of the Hiiukaka FLAG where women feel like they have little to no control. Furthermore, the Costa da Morte FLAG's local strategy does mention that the FLAG board should strive towards gender balance. While this is not the case now, the FLAG is encouraging its members to appoint more female representatives to achieve this objective. Contrastingly, in the Hiiukala and Plodovi Mora FLAG strategies, there are no such stipulations. Beyond the purely mathematical representation at board level, the Costa da Morte FLAG has mainstreamed gender aspects throughout its strategy (via its management principles, selection criteria, animation activities and specific measures) which ensures gender equality becomes a reality in FLAG operations.

3.4 FLAG support to women in fisheries and aquaculture

Based on the figures provided in the sample (Table 5), extrapolations can be made offering estimated figures for the entire population of FLAGs for the 2014-2020 programming period. In the 2014-2020 period, there will be a total of approximately 13 219 FLAG projects, of which, 1 851 (14%) will be focused specifically on support to women.¹⁰ In contrast, in the 2007-2013 programming period under Axis 4 of the EFF, it is estimated that there was a total of 13 363 FLAG projects. Of these projects, approximately 1 179 (9%) were focused specifically on support to women,¹¹ equating to approximately €65 million in FLAG funding.¹² Further comparisons between the two programming periods are offered in Section 3.5.

By MS, only Denmark has no projects focused on the support to women.¹³ The total number of projects to women is illustrated in Figure 5 which identifies Spain as leading the way in terms of the number of FLAG projects in support of women, accounting for 49% of the combined MS total number projects (Figure 5). In descending order, Spain is closely followed by Italy and Greece, identifying the Mediterranean as a concentrated area in terms of support to women by way of project numbers.

¹⁰ These are conservative estimates based on the information provided by FLAG managers and the actual figures are expected to be higher.

¹¹ There were 310 active FLAGs in the 2007-2013 programming period.

¹² Figure based on the total FLAG total budget figures offered in the FSU annual implementation report (2015).

¹³ This is based on only two FLAG responses (a sample of 20%) from Denmark.

Table 5: Sample total number of planned FLAG projects in support of women (2014-2020)

MS	Number of Responding FLAGs	Representation of Total FLAGs	Total Number of Projects	Projects in Support of Women	Share of Total Projects
Bulgaria (BG)	3	38%	80	24	30%
Lithuania (LT)	4	33%	45	12	27%
Italy (IT)	12	24%	196	50	26%
Croatia (HR)	4	33%	128	28	22%
Greece (GR)	9	27%	196	42	21%
Spain (ES)	19	46%	1648	284	17%
Romania (RO)	8	36%	144	24	17%
Estonia (EE)	2	25%	102	14	14%
Poland (PL)	9	25%	360	38	11%
Germany (DE)	12	41%	70	6	9%
Sweden (SE)	4	31%	58	4	7%
France (FR)	11	48%	231	14	6%
Ireland (IE)	2	29%	400	24	6%
Portugal (PT)	3	20%	110	6	5%
United Kingdom (UK)	4	21%	90	4	4%
Latvia (LV)	4	66%	146	2	1%
Denmark (DK)	2	20%	55	0	0%
Total	113	31%¹⁴	4059¹⁵	576¹⁶	14%¹⁷

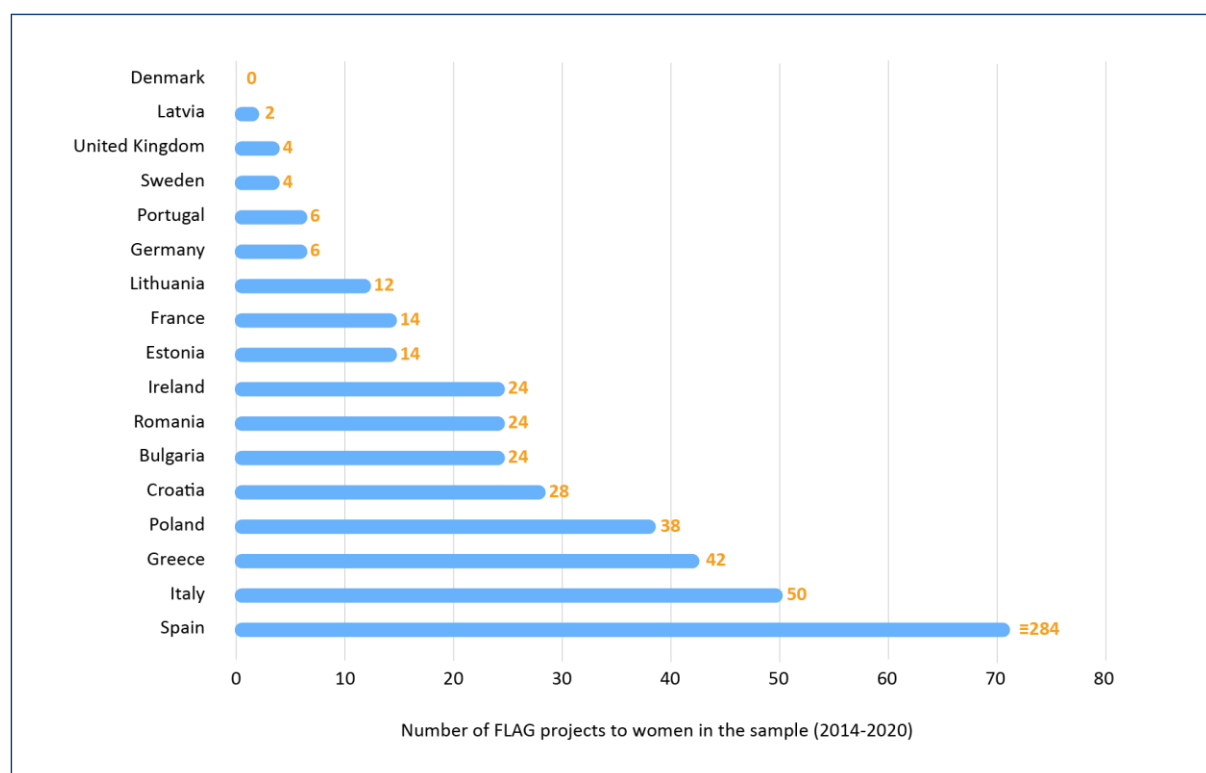


Figure 5: Total number of FLAG projects in support of women (2014-2020)

As shown in Table 5, by way of the percentage of total FLAG projects, the landscape is somewhat more uniform. Spain's relatively high number of 284 projects to women only accounts for 17% of its total number of FLAG projects. FLAGs in the Baltic sea basin tend to have a lower than average percentage of projects supporting women ($\leq 14\%$)¹⁸, while the Mediterranean FLAGs predominantly have greater

¹⁴ The total percentage of FLAGs represented in the sample.

¹⁵ Total FLAG projects in the sample. Extrapolated this equates to a conservative estimate 13 219 projects across all FLAGs.

¹⁶ Total number of FLAG projects to women in the sample. Extrapolated this equates to an estimated 1 851 projects.

¹⁷ Mean value of the samples total share of projects in support of women.

¹⁸ Except for Lithuania. In the sample, Lithuania 27% of FLAG projects are in support of women.

than the average number of projects in support of women. Figure 6 demonstrates a geographical comparative view of the spread of projects supporting women across the EU, again based on the total number of projects per MS. Again, the difference between the Northern and Southern FLAGs is apparent. These differences in project numbers correlate with differences among FLAGs in their levels of priority in support to women are detailed further in Section 3.5.

Taking a closer look at project selection criteria across the three case studies, the FLAG strategy of the Hiiukala FLAG has no project selection criteria related to gender. The FLAG does, however, acknowledge that it is something that may be introduced in the future. Both the Costa da Morte and Plodovi Mora FLAGs both give additional points to project proposals where the beneficiaries of the project are female.

In terms of the size of projects in support of women, the Costa da Morte FLAG case study offers a closer insight. At first glance, the budget size of projects targeted at women in the Costa da Morte FLAG area reflects the whole range of budgets of the FLAG projects with women supportive projects ranging from large-scale investments (up to €190 000) all the way down to micro projects (less than €2 000). Still, the average size of projects supportive of women is around (€50 000) which is lower than the average cost of the FLAG projects in general (€70 000). The disparity is even higher when looking at the median size of projects which amounts to around €28 000 for women supportive projects while the overall project population median is close to €54 000 (nearly twice as much), confirming the fact that projects targeted at women tend to be of smaller budgets.

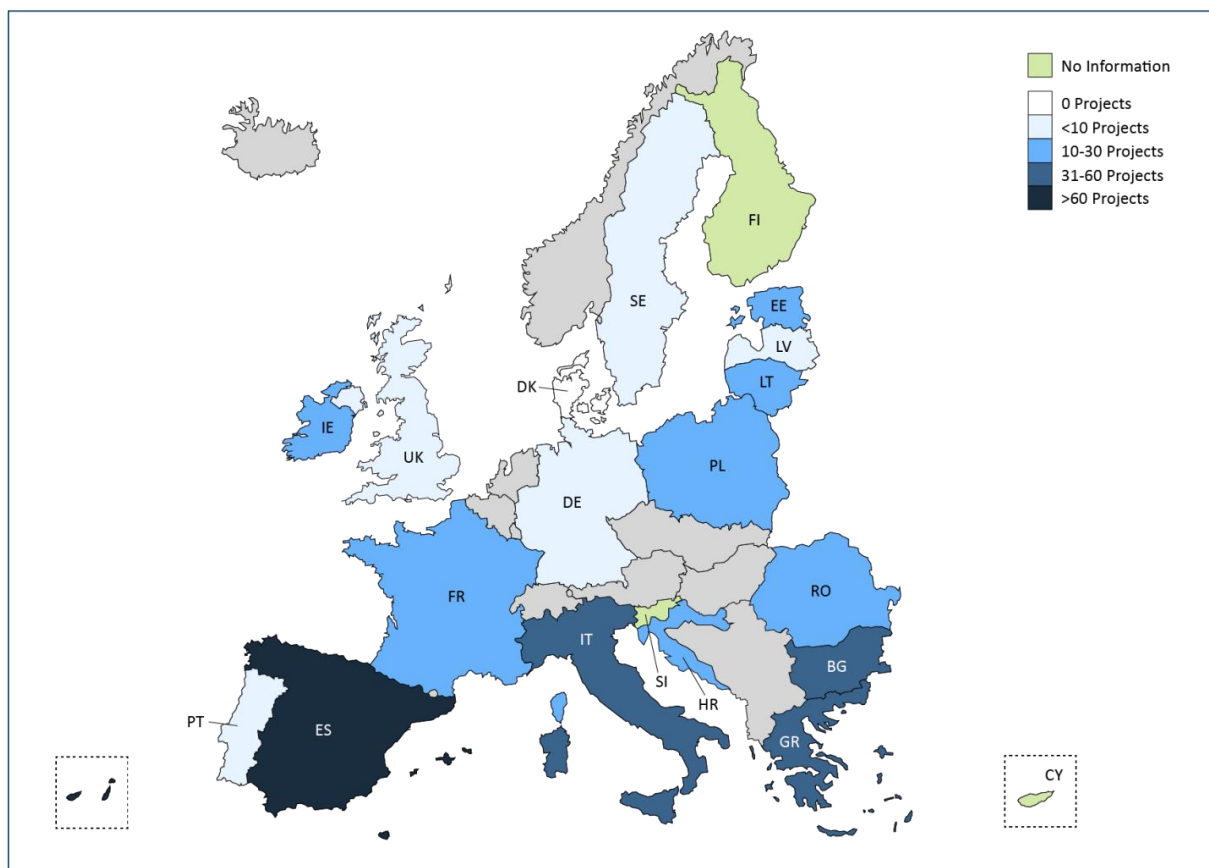


Figure 6: Number of planned FLAG projects supporting women per MS (2014-2020)

3.5 Comparing programming periods

3.5.1 Share of projects

From the 113 FLAGs responses, 64 were active in the 2007-2013 programming period and funded projects under Axis 4 of the European Fisheries Fund (EFF). Many of the FLAGs who responded to the survey were newly established and therefore only active in the 2014-2020 programming period (CLLD under the EMFF). Based on the estimated share of FLAG projects for each programming period, the share of projects targeted at women is expected to increase by 5% (Figure 7).

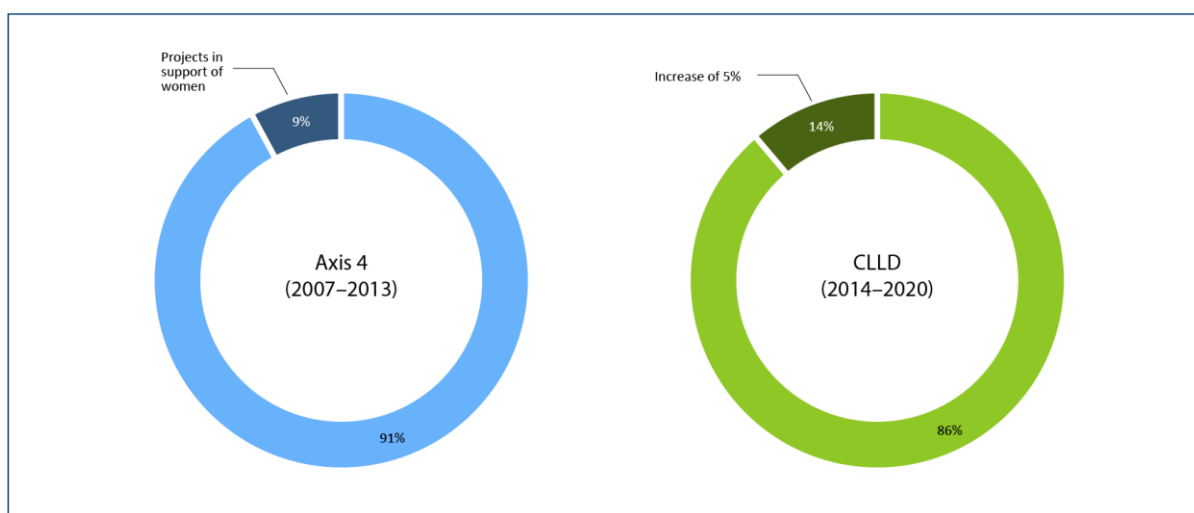


Figure 7: Expected increase in share of projects in support of women over programming periods

3.5.2 FLAG strategic priorities

The priority given to women in fisheries is also increasing for FLAGs. Figure 8 illustrates the aggregated priority FLAGs placed on supporting women for each programming period. There is a move towards a higher priority being placed on women across the sector and it is apparent that FLAGs are, generally, placing a greater emphasis on women when outlining their objectives. 27% of FLAGs indicated that support to women is a high priority, an 11% increase on the 2007-2013 programming period. The percentage of FLAGs giving a moderate priority to supporting women remains consistent at 28%, and the number of survey responses not providing information on the priorities levels was negligible at 6% and 4% respectively. Therefore, it can be discerned that the priority levels that FLAGs are placing on supporting women in fisheries is seeing an upward trend.

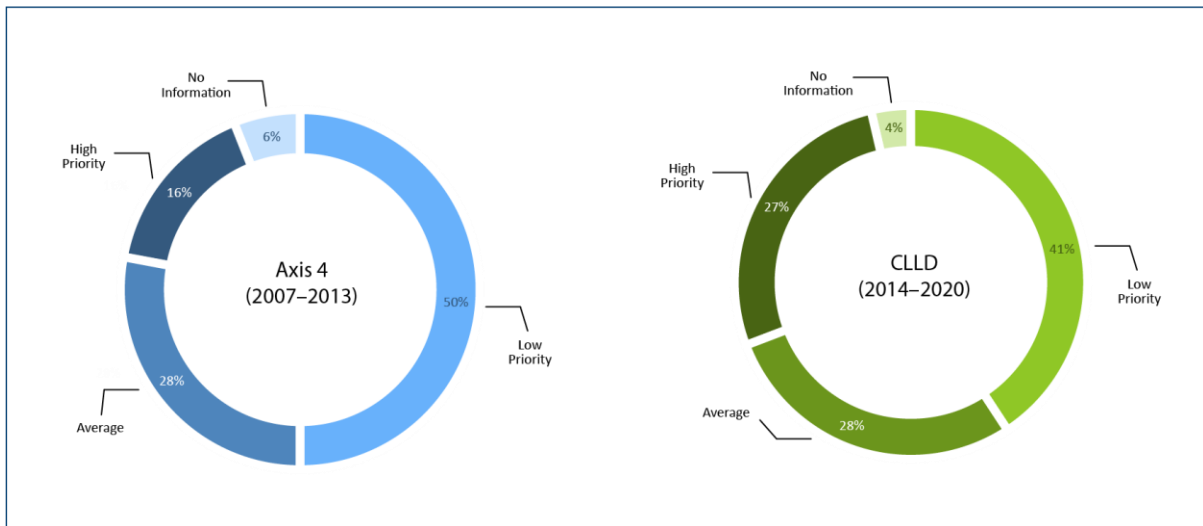


Figure 8: Evaluating FLAG priority levels on the support to women across programming periods

3.5.3 FLAG project objectives

Over the two programming periods, the objectives of FLAG projects in support of women have changed. Most notably, support to increase the role of women in decision making and capacity building have risen (Figure 9). The objective of the diversification of activities outside of fisheries such as tourism has remained the same. Comparatively objectives such as adding value to fisheries products, the visibility and representation of women, and networking have experienced lower increases.

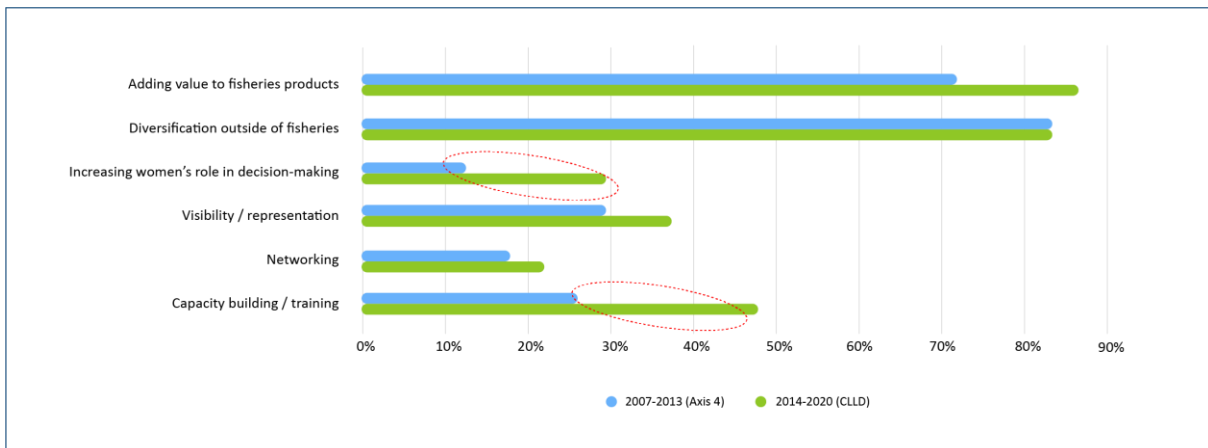


Figure 9: Comparison of FLAG project objectives to women across programming periods

Still, as Figure 9 shows, the diversification of fisheries activities and adding value to fisheries products remain by far the most important strategic objectives in terms of supporting women in FLAG areas. In the 2014-2020 programming period over 80% of all responding FLAGs identified them as key objectives. As such, this was a central focus of the qualitative case studies.

In the Hiiukala FLAG area, women play a significant role in the diversification of fisheries activities into other sectors such as tourism. Supporting and nurturing this diversification from a FLAG perspective requires a layered approach and one that offers more than just financial support. In Hiiumaa, women are the pillars of the community and central to social welfare. Other forms of support such as

networking are pivotal to fostering collaboration and entrepreneurship which have driven recent developments in the Hiiukala FLAG area. While pecuniary support is often essential in terms of project implementation, it is not always required to foster project ideas. Women in Hiiumaa are the driving force behind the innovation and diversification of the area's fisheries activities and the Hiiukala FLAG encourages this process and facilitates networking and collaboration opportunities for many women in the territory.

The Plodovi Mora case study also found similar findings. Women in the FLAG are seen among the most dynamic and forward-looking entrepreneurs. They own and/or manage many of the family businesses, occupy important positions in large fish farming and processing enterprises, and contribute to the incomes of fishing families by processing and marketing of fish products. They also participate in and maintain many of the fisheries traditions of the region. Although only operational as of 2018, there seems to be a clear strategic orientation to strengthen and diversify the fishing sector, and it is highly probable that women will be the main beneficiaries of such projects.

The diversification and development of new activities have been a key area of work for the Costa da Morte FLAG. Shellfish gatherers, for example, were supported to develop a tourist package to introduce seasonal visitors to their activities while netmakers associations received training to develop artisanal products based on their net making/repairing skills. Some netmakers reported that the activity accounts for more than 70% of their current income from these new activities. Several very successful restaurants have also been opened thanks to the drive and motivation of local women, all belonging to fishing families.

A key lesson from all field visits is that FLAG support to women should not be limited or confined to financial contributions alone, with skill development and governance support key to releasing the innovative and entrepreneurial drive women in many fisheries communities. Another lesson from the case studies is that diversification of activities not only provides women with an alternative source of income and therefore increases their resilience, it also brings them wider social recognition, something very important in the fight for their rights to be recognised professionally and to combat the issues associated with the 'invisibility' of female contributions to the sector mentioned in 3.2.

3.6 Correlation between FLAG organisational structure and support to women in fisheries

FLAG support to women is increasing, which is evident from the comparison of programming periods; priority levels, the expected number of projects and expected budgets have all risen. To further explore how and why some FLAGs support women in fisheries, a correlation analysis was conducted to establish if the organisation structure of a FLAG at board and management level influences the amount of support a FLAG provides. Central to this analysis was the gender balance at the decision-making levels of FLAGs.

A key finding from the analysis, as shown in Figure 10, is a correlation between the average number of women on FLAG boards and the number of projects specifically focused on the supporting women. In other words, if a FLAG has a higher than average number of female board members,¹⁹ it will have a significantly higher number of projects in support of women.²⁰

¹⁹ Average number of female FLAG board members is 26%.

²⁰ $p = 0.043 (< 0.05)$.

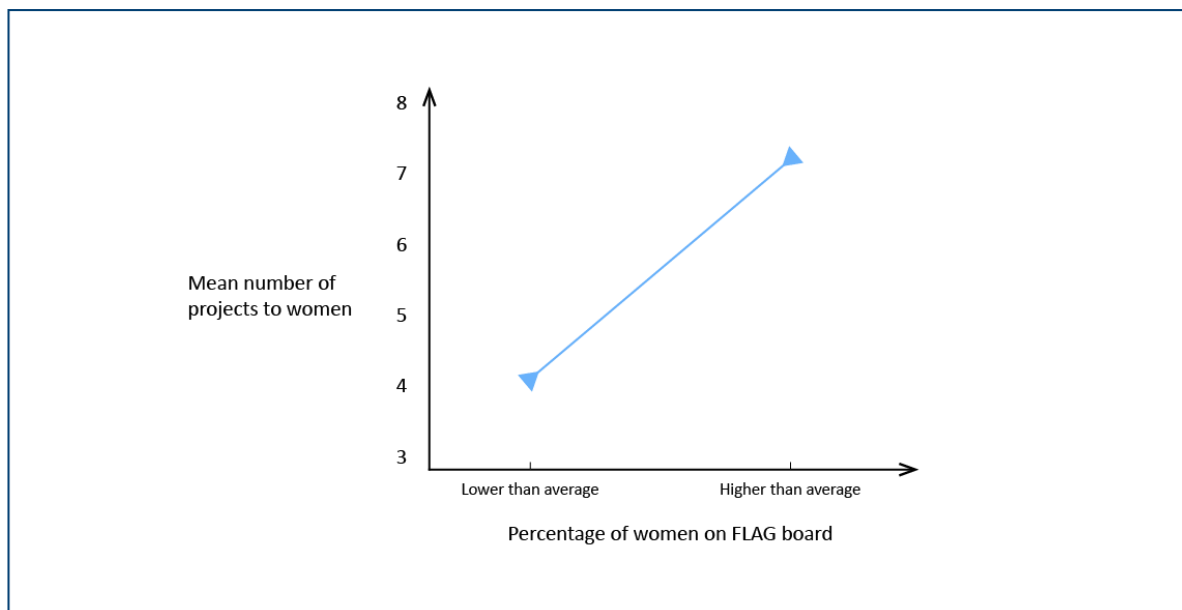


Figure 10: Correlation between FLAG organisations and number of projects

To establish this relationship between the number of women on FLAG boards and the number of FLAG projects in support of women, an analysis of variance (ANOVA) was used to determine that the mean number of projects in support of women is different between FLAGs with a higher and lower than average number of women on their board. The sample of the analysis was the 101 FLAGs which provided data on both their board structure and a full indication of their number of projects. Results indicate that FLAGs with a higher than average number of female board members will have more projects in support of women.

As the assumption of homogeneity of variance between the two groups (null hypothesis) was violated, Brown-Forsyth and Welch tests were conducted to confirm the ANOVA result; tests which are more rigorous in assessing the means between groups which have substantial differences in variance.²¹ The tests were significant ($p = 0.045 < 0.05$), confirming the ANOVA and allowing the assumption that the relationship between the two variables is true of the entire population (all FLAGs). In other words, FLAGs with higher gender equality at board level, tend to have more projects in support of women; a mean difference of 3.5 projects. The SPSS outputs are available in Appendix B.

A similar test was conducted to identify if there was a relationship between the gender of the FLAG manager and the number of projects in support of women. Due to the even distribution of the gender of FLAG managers in the sample, the test was insignificant; confirming that the gender of a FLAGs manager does not significantly influence the number of projects the FLAG has in support of women.

Finally, an ANOVA was conducted to identify if the gender balance of a FLAG board also interrelated with the percentage share of the FLAGs total budget that projects specifically focused on women represent. The analysis was run with a reduced sample size of 68 FLAGs who provided data on the share of their total budget. The results of the test were insignificant. However, the results do show a trend which is in line with those of the number of projects in support of women as shown in Figure 11. While no assumptions can be made due to the difference in budget share not being statistically

²¹ The Brown-Forsyth and Welch tests are a statistical confirmation that there is a significant difference in the variance between the number of projects to women in two separate groups (FLAG decision-making boards with a high number of female board members and those with a low number of female board members).

significant, it does provide an indication of an increase spend on projects in support of women. One factor to consider, which may have influenced the result, is the reduced sample size.

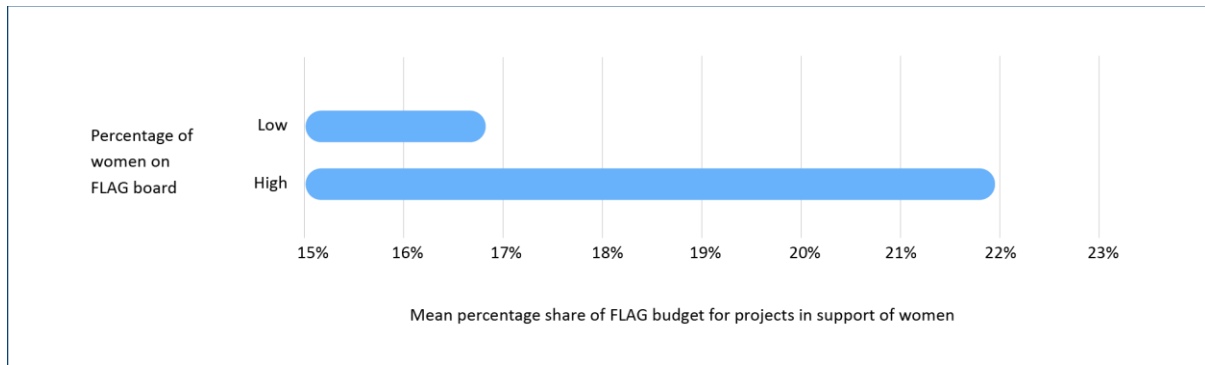


Figure 11: Gender equality on FLAG boards against the share of budget in support of women

Naturally, as with any analysis, many factors may influence the correlation. An important consideration is that any area with an increased involvement of women in fisheries and aquaculture, such as Spain, over time can be expected that the number women at decision-making levels will be higher as more women are active in the industry. The same can be said for the number of projects.

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- FAO Statistics: <http://www.fao.org/corp/statistics/en/>
- FAO: <http://www.fao.org/>
- ICSF: www.icsf.net
- Seafish: <http://www.seafish.org/>
- UMAR Açores: <http://www.umar-acoeres.org>
- Women in Fisheries: <https://women-fisheries.com/>

5. Appendices

Appendix A: Survey design

(Block 1 – Introduction)

*This survey is conducted by the FARNET Support Unit to measure the extent of support provided by FLAGs to **women** in fisheries and aquaculture communities, in particular those contributing formally or informally to fisheries-related activities. As this is a relatively under-researched area, we understand that exact figures may not be possible. Therefore, please try to **provide estimated figures** where the exact figure is either unknown or unobtainable.*

*This survey takes an average time of **five minutes** to complete. Thank you for your participation!*

FLAG name: _____

Email: _____

Tel no: _____

Country: (drop-down list)

Region (for DE, FR, IT, ES) (drop-down list)

1. Is your current FLAG manager?

- Male
- Female

2. How many people are on your FLAG's decision-making body?

2.1 How many of those on the FLAG decision-making body are women?

(Block 2: Women in your FLAG Area)

*The following questions relate to the representation of women in your FLAG area. Please **provide estimates** when the exact the figure is unknown.*

3. What is the total population of your FLAG area?

4. What is the total employment in your FLAG area for the following fisheries-related activities? (total number of people i.e. all employment types)

Fisheries _____

Aquaculture _____

Processing _____

Activities auxiliary to fisheries (for example: selling, net-mending, administration) _____

5. How many women in your FLAG area **formally** work in the following fisheries-related activities (i.e. are employed/ paid)?

Fisheries _____

Aquaculture _____

Processing _____

Activities auxiliary to fisheries (for example: selling, net-mending, administration) _____

6. How many ***family run*** fisheries-related businesses are there in your FLAG area?

6.1 What percentage of these family run fisheries-related businesses rely on the ***informal*** work of women in the family (i.e. work that benefits the family business but that is not formally paid)?

- Dropdown
- 0%, 1-5%, 6-10%, 11-15%, 16-20%, 21-25%...

(Block 3: The 2007-2013 Period)

The following questions relate to the 2007-2013 period.

7. Was your FLAG active in the 2007-2013 period?

- Yes
- No (skip to block 4)

8. What was your total FLAG budget (EFF + national/regional co-funding) for the 2007-2013 period?

€ _____

9. Was the support of women in fisheries, aquaculture and processing a priority to your FLAG strategy?

- **Likert** (1-5 with end-points low-priority/high-priority)

10. How many projects did your FLAG fund in the 2007-2013 period?

10.1. Of those projects, how many were focused specifically on benefiting women in fisheries-related activities?

- **Dropdown**
- 0 (skip to block 4)
- 1-2 projects
- 3-4 projects
- 5-6 projects
- 7-8 projects
- 9-10 projects
- 11-12 projects
- 13-14 projects
- 15 or more projects (please state _____)

10.2 What share of the total FLAG budget for the 2007-2013 period did these projects represent?

- **Dropdown**
- 1-5%
- 6-10%
- 11-15%
- 16-20%
- 21-25%
- 26-30%
- More than 30% (please state _____)

10.3 What were the main objectives of these projects? (please tick all applicable).

- Capacity building / training
- Networking
- Visibility / representation
- Increasing women's role in decision-making

- Diversification outside of fisheries (i.e. tourism, arts and crafts, hospitality)
- Adding value to fisheries products (sales, marketing, processing etc)
- Other _____ (please state)

(Block 4: The 2014-2020 Period)

*The following questions relate to the 2014-2020 period. As the period is still ongoing, **please try to provide estimates** where the exact figures are unknown.*

11. What is your total FLAG budget (EMFF + national/regional co-funding) for the 2014-2020 period?

€ _____

12. Is the support of women in fisheries, aquaculture and processing a priority to your FLAG strategy?

- **Likert** (1-5 with end-points low-priority/high-priority)

13. Approximately how many projects does your FLAG expect to support in the 2014-2020 period?

13.1 Of those projects, how many do you expect to be focused specifically on benefiting women in fisheries related activities?

- **Dropdown**
- 0 (skip to end)
- 1-2 projects
- 3-4 projects
- 5-6 projects
- 7-8 projects
- 9-10 projects
- 11-12 projects
- 13-14 projects
- 15 or more projects (please state _____)

13.2 What share of the total FLAG budget for the 2014-2020 period do these projects represent?

- **Dropdown**
- 1-5%
- 6-10%
- 11-15%
- 16-20%
- 21-25%
- 26-30%
- More than 30% (please state _____)

13.3. What will be the main objectives of these projects? (please tick all applicable)

- Capacity building / training
- Networking
- Visibility / representation
- Increasing women's role in decision-making
- Diversification outside of fisheries (i.e. tourism, arts and crafts, hospitality)
- Adding value to fisheries products (sales, marketing, processing etc)
- Other _____ (please state)

Appendix B: SPSS outputs

B.1 ANOVA FLAG board gender against*number of projects to women

Table 1: Descriptives

Number of FLAG Projects to Women

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Lower than average	51	4.0784	5.29091	.74088	2.5903	5.5665	.00	30.00
Higher than average	50	7.3600	10.10508	1.42907	4.4882	10.2318	.00	50.00
Total	101	5.7030	8.17012	.81296	4.0901	7.3159	.00	50.00

Table 2: ANOVA

Number of FLAG Projects to Women

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	271.883	1	271.883	4.204	.043
Within Groups	6403.206	99	64.679		
Total	6675.089	100			

Table 3: Test of Homogeneity of Variance

Number of FLAG Projects to Women

Levene Statistic	df1	df2	Sig.
12.562	1	99	.001

Table 4: Robust Tests of Equality of Means

Number of FLAG Projects to Women

	Statistic ^a	df1	df2	Sig.
Welch	4.156	1	73.664	.045
Brown-Forsythe	4.156	1	73.664	.045

a. Asymptotically F distributed.

B.2 ANOVA FLAG manager gender*number of projects to women

Table 1: Descriptives

Number of FLAG Projects to Women

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Male	50	6.1000	8.62897	1.22032	3.6477	8.5523	.00	50.00
Female	51	5.3137	7.76013	1.08664	3.1312	7.4963	.00	30.00
Total	101	5.7030	8.17012	.81296	4.0901	7.3159	.00	50.00

Table 2: ANOVA

Number of FLAG Projects to Women

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	15.609	1	15.609	.232	.631
Within Groups	6659.480	99	67.267		
Total	6675.089	100			

B.3 ANOVA FLAG board gender against*share of budget to women

Table 1: Descriptives

Percentage of Budget to Women

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
					Male	31		
Female	37	21.89	20.116	3.307	15.18	28.60	5	80
Total	68	19.49	16.002	1.941	15.61	23.36	5	80

Table 2: ANOVA

Percentage of Budget to Women

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	470.063	1	470.063	1.859	.177
Within Groups	16686.922	66	252.832		
Total	17156.985	67			