



Towards territorial development in fisheries areas: A typology of projects funded by Fisheries Local Action Groups

Lluís Miret-Pastor^{a,*}, Kristina Svells^b, Richard Freeman^c

^a IGIC, Universitat Politècnica de València, Spain

^b Natural Resources Institute, Finland

^c Newcastle University, UK

ARTICLE INFO

Keywords:

Small-scale fisheries
Community-led local development
Fisheries local action groups
Fisheries diversification
Neo-endogenous development

ABSTRACT

Community-led Local Development (CLLD) offers a novel bottom-up approach to achieving territorial development in EU fisheries and aquaculture areas. Through Fisheries Local Action Groups (FLAGs), CLLD sets out to increase both employment and territorial cohesion by bringing together local stakeholders in the selection and implementation of projects which meet the specific needs of the FLAG area and its fisheries communities. Through an analysis of 2691 FLAG projects, this study offers comparative insights into the implementation of CLLD across eight EU Member States. The analysis shows that there are three areas that account for almost 90% of total budget spending, projects attributed to adding value to the fisheries value chain, the diversification fisheries activities, and those with socio-cultural focus, while fewer projects attributed to the environment or increasing representation in local governance. The results of this analysis are compared with the priorities expressed by FLAGs at the beginning of the program, as well as the national Operational Programs of individual Member States.

1. Introduction

In 2007, Axis 4 of the European Fisheries Fund (EFF) introduced a novel approach to the territorial development of fisheries areas [1]. Central to this new approach was the formation of Fisheries Local Action Groups (FLAGs), which bring together public and private stakeholders to tackle the unique and specific challenges of a predefined area [2]. Axis 4 was the first significant foray of the EC in introducing a more territorial approach to the EU's fisheries areas. Nowadays, the same approach is known as community-led local development (CLLD) and falls under Union Priority 4 (UP4) of the European Maritime and Fisheries Fund (EMFF). Under Council Regulation (EU) 2014/508 [3], the priority outlines the specific objective of increasing both employment and territorial cohesion in fisheries areas.

Literature on FLAGs and their impact on fisheries areas has grown in recent years. For example, studies have focused on the role of FLAGs in establishing co-management models [4], the possibility of establishing links between professional and recreational fishing through FLAGs [5] and how FLAGs have cooperated on specific issues in the Baltic [6]. Some studies have focused on specific FLAGs in Italy [7–9], France [1] and the UK [10], while others have analyzed the impact of the program

at a national level, i.e. Poland [11] and Spain [12]. Two studies have compared FLAGs transnationally between Spain and Portugal [13] and Spain and Ireland [14]. At European level, research has focused on the impact of FLAGs in specific contexts such as how FLAGs support small-scale coastal fisheries [15] and the role of women in fisheries communities [16] identify the ways in which FLAGs support women in fisheries.

While the literature on FLAGs is broad, they are largely qualitative, and focus on only one aspect of CLLD; for example, the conflict of natural resources management [6], governance [4,10,13], diversification [5,12], gender [16] or case specific local development strategies [7,11]. As the program draws to close, several studies will, undoubtedly, delve further into these areas as well as establishing new lines of research. However, given the diverse use of CLLD in encouraging and financing projects from social and economic, through to environmental and governance objectives, the present study offers, at a transnational level for the first time, a comparative analysis of CLLD project typologies and how they relate to local development strategies.

By analyzing the projects funded by FLAGs, the current study offers a comparative insight into the application of CLLD across the eight selected Member States (MSs), and as such, frames how CLLD has been

* Corresponding author. E. Politècnica Superior de Gandia C/ Paraninf 1, 46730, Grau de de Gandia, Spain.

E-mail addresses: luimipas@esp.upv.es (L. Miret-Pastor), kristina.svells@luke.fi (K. Svells), r.freeman2@newcastle.ac.uk (R. Freeman).

implemented across the MSs and how this might change in the future as a typology of projects begins to emerge. The MSs studied are Spain, Ireland, Denmark, Sweden, Finland, Latvia, Estonia, and Poland (see Fig. 1). Specifically, the study addresses the following research questions: (RQ1) How do FLAG projects correspond to the CLLD objectives of the EMFF? (RQ2) Are different models emerging between these EU MSs? And (RQ3) Do the FLAG and national OP priorities match with the typology of the projects reported as of March 2019.

In the following sections, theoretical perspectives which inform a background to the research are outlined before the EMFF policy, specifically UP4 is contextualized. A description of the methodology and materials used is then offered before the data is analyzed for each selected EU MS and transnational comparisons are made. The quantitative results obtained from the analysis are then discussed in comparison with other sources of information and, finally, the conclusions are used for informing future lines of research and outlining the emergence of models, their strengths and weaknesses, and how they may impact future policy.

2. CLLD and Fisheries Local Action Groups

The development of fisheries areas in recent decades is an example of how local development in Europe has been influenced by a philosophical shift from exogenous to endogenous approaches (those which are driven from within local communities) and rests on the assumption that local communities themselves are the best place to inform their own development [17,18]. While the literature on local development is often placed in the rural sphere and focused on agriculture, there are many reasons why this notion can be extended to other communities, fisheries being one such example [19].

Modelled on the LEADER approach introduced to rural areas in 1991, CLLD brings together local public and private stakeholders in the joint design and implementation of integrated local development strategies aimed at building resilience and adaptability in fisheries areas and their local communities [20,21]. As such, FLAGs bridge sectoral and territorial approaches to the development of fisheries areas [10] and reflect neo-endogenous theory by embracing ‘extra local’ forces while maintaining local control over developmental direction and decision-making [22].

In 2019, there were 367 active FLAGs implementing CLLD across 20 EU Member States (MSs).¹ Each FLAG develops and implements its own Local Development Strategy (LDS), funding projects which are selected based on their capacity to address local priorities [23]. The central aim of a FLAG’s LDS is achieving the objective of UP4 ensuring the sustainable development of its territory in social, economic and environmental terms [7], with decision-making coming from a bottom-up approach which brings together representatives from the public, private and civil sectors [2,24].

As argued in theories of neo-endogenous development, FLAGs are placed at the heart in animating local actors, who are best placed to design and implement multi-sectoral local development strategies which best meet the needs of their areas and communities [10,17]. Article 6 of the EMFF sets out six Union Priorities (UPs) for the sustainable development of fisheries and aquaculture [3]. CLLD is covered under UP4 which outlines a priority of: ‘increasing employment and territorial cohesion’ by pursuing the following specific objective: ‘the promotion of economic growth, social inclusion and job creation, and providing support to employability and labor mobility in coastal and inland communities which depend on fishing and aquaculture, including the diversification of activities within fisheries and into other sectors of

maritime economy’ [3].

In the 2014–2020 programming period, the EMFF had a total budget of €6.4 billion, and CLLD under the UP4 of the EMFF had a total budget of €547 million. The EMFF co-finances the national program of each MS which varies substantially, due to the size of the MSs fisheries sector and based on the MSs cohesion status. MSs develop a national operational program (OP) distributing the allocated funds through the different Union Priorities. UP4 funds are distributed among FLAGs which then select projects based on their own selection criteria before the MSs managing authority checks and approve projects as eligible for funding. The EMFF regulation envisages that UP4 funding can be used to achieve the following objectives [23]: (1) *adding value*, which includes adding value to local fisheries products, (2) *diversification* of fisheries activities into other sectors; (3) *socio-cultural*, promoting social well-being and cultural heritage (4) *environmental*, including operations to mitigate the climate change, and (5) *governance*, reinforcing the role of fishing communities.

The five objectives set out in the regulation article 63 [3] are obligatorily used for the categorization and reporting of projects once they are approved. However, unless restricted by their national OP, FLAGs are free to use the five regulation measures in their LDSs or as criteria for project selection which will form the basis of the typology of projects outline in the following analysis.

Through analyzing the activity of FLAGs and the projects they support; this research offers a glimpse of how FLAGs and their projects are important in achieving a balanced approach to fisheries areas development. It also offers a first look at the lessons learned from UP4 and FLAGs and offers insights into how a neo-endogenous approach to fisheries development impacts fishing communities, their sustainability, and resilience. Furthermore, the analysis also informs how the policy may be adapted in the future.

3. Methodology

This research is based on the FLAG projects reported by MSs to the European Commission as required by Article 97 of the EMFF [25]. Eight of the now 19 EU MSs implementing CLLD under the EMFF were selected for the analysis based on number of factors (see Table 1). Firstly, MSs were selected based on the maturity of CLLD programs. MSs with no projects reported under the five objectives of UP4 were excluded from the analysis. Secondly, MSs were selected in order to represent fisheries areas in the major European sea-basins: the Mediterranean, Atlantic, North and the Baltic Sea. To form transnational comparisons, the Operational Programs (OPs) of the eight selected MSs were also analyzed, as were aspects of individual FLAG Local Development Strategies (LDS).

The present analysis focuses on UP4 of the EMFF (see Table 2), and specifically on projects related to the five UP4 objectives as set out in Article 63 [3] which include: adding value to local produce, promoting innovation, and creating employment at all stages of the fisheries supply chain; the diversification of commercial fishing activities, inside or outside of the industry, focusing on lifelong learning, knowledge exchange, and the creation of jobs in fisheries areas; the utilization of natural resources, and how EMFF funds should potentially fund the enhancement and capitalization of the environmental assets of fisheries areas, including efforts to mitigate climate change; promoting social wellbeing and cultural heritage in fisheries areas, with a focus placed on enhancing fisheries and maritime cultural heritage to strengthen the role of fisheries communities in the local development process; and increasing the involvement of the fisheries sector and fisheries stakeholders in local governance. While only the first of these objectives explicitly mentioned the innovation and development of fisheries supply chains, each of the objectives encompasses factors which contribute to territorial development [3].

The analysis excludes projects reported as preparatory support and running and animating costs (Art. 62), and those associated with

¹ In 2020, the United Kingdom left the European Union. This decreased the official number of FLAGs to 350 across 19 MSs. Despite leaving the European Union, the UK FLAGs remain operational, fulfilling their LDSs until the end of the 2014–2020 programming period.



Fig. 1. Location of the FLAGs across the eight MSs.

Table 1
Number of FLAGs, population, and fisheries employment figures.

MS	Denmark	Estonia	Spain	Finland	Ireland	Latvia	Poland	Sweden
FLAGs								
2014–2020	10	8	41	10	7	6	36	13
2007–2013	16	8	30	8	6	24	48	14
Change	–6	n/a	+11	+2	+1	–18	–12	–1
Population								
Total	648,950	351,284	5,222,831	3,292,367	802,901	192,592	3,113,067	2,572,505
Average	64,895	43,910	127,386	329,237	114,700	32,099	86,474	197,885
Employment (FTE)								
Fishing (2015)	1570	412	29,332	342	2036	291	2364	793
Aquaculture (2014)	336	30	5946	329	941	n/a	n/a	278
Processing (2016)	3018	1844	17,693	748	2147	3588	16,569	1662

Source: Own elaboration based on FARNET and European Commission (2020) [26].

transnational cooperation (Art. 64). EMFF funding differs between MSS and is allocated according to the size of a MSS fishing sector. MSS are then responsible for allocating a budget under UP4 should they choose to implement fisheries CLLD. A requirement of the EMFF is a mandatory national (in some cases regional or local) contribution [2,3]. Table 2 shows the total public budget available for CLLD in the eight countries analyzed and highlights how national contributions and total public budgets vary substantially between the MSS under consideration.

The dataset contains information on 3807 projects, of which 3011 were reported by the eight selected countries in this study. Projects not reported linked under the five objectives of UP4, i.e. those which are reported under preparatory support, FLAG running and animation costs, and cooperation projects have not been considered leaving a final sample of 2691 projects. The data was first analyzed to categorize the projects by UP4 objective and MS before comparisons are made with national OPs and priorities FLAGs placed on each of the UP4 objectives

Table 2
 CLLD funding across the selected MSs 2014–2020 (M€).

MS	FLAGS	CLLD Budget	MS Co-funding	Total funding
Denmark	10	7,518,393	8,144,926	15,663,319
Estonia	8	23,600,000	4,164,706	27,764,706
Spain	41	107,673,734	19,001,247	126,674,981
Finland	10	3,926,734	5,473,266	9,400,000
Ireland	7	6,000,000	6,000,000	12,000,000
Latvia	6	12,750,000	2,250,000	15,000,000
Poland	36	79,699,995	14,064,705	93,764,700
Sweden	13	8,343,266	8,343,265	16,686,531

Source: Own elaboration based on FARNET data.

at the beginning of the programming period.

4. Analysis

As can be seen in Table 3, there are three areas that account for almost 90% of total spending. By number of projects socio-cultural projects lead the ranking, but for the total expenditure diversification leads the ranking and almost one euro out of every three was spent on diversification projects. The number of environmental projects is much lower (over 10% of the total) and governance projects are minimal. However, these numbers contrast with national realities across the eight MSs.

Adding value projects are present in all countries although they are a majority in EU MSs such as Denmark, Estonia and Finland. There are significant numbers in Spain, Ireland, and Sweden, while they are lower in Latvia and Poland. Diversification projects are particularly important in Spain, accounting for almost half of all projects, and are also significant in Denmark, Estonia, and Poland. However, diversification projects appear to be less important in Finland, Latvia, Sweden, and Ireland. Environmental projects are only prominent in Sweden, accounting for 43.8% of the total amount, also quite important in Finland and Latvia, where environmental projects account around 20%. For all other MSs they account for less than 10%. Socio-cultural projects have a very

Table 3

Number of projects approved and the corresponding EMFF funding (€ and % of national total) attributed to each UP4 objective.

MS	Adding Value	Diversification	Environmental	Socio-Cultural	Governance	Total
Denmark	75	58	6	10	2	151
	2,078,831	1,180,613	115,054	231,333	73,649	3,679,480
Estonia	56.5%	32.1%	3.1%	6.3%	2.0%	
	189	159	9	97	–	454
Spain	5,744,475	2,646,910	308,034	1,298,783	–	9,998,202
	57.5%	26.5%	3.1%	13.0%	0%	
Finland	165	168	39	75	14	461
	6,026,300	9,346,574	1,572,291	1,616,870	253,598	18,815,633
Ireland	32%	49.7%	8.4%	8.6%	1.3%	
	78	33	34	19	1	165
Latvia	1,141,450	315,834	381,184	184,260	12,042	2,034,770
	56.1%	15.5%	18.7%	9.1%	0.6%	
Poland	48	18	6	265	–	337
	404,985	95,131	15,642	1,273,279	–	1,789,037
Sweden	22.6%	5.3%	0.9%	71.2%	0%	
	18	39	29	33	–	119
Estonia	590,395	1,063,247	1,775,025	3,583,071	–	7,011,738
	8.4%	15.2%	25.3%	51.1%	0%	
Spain	86	310	73	441	8	918
	2,367,199	9,155,563	2,146,001	13,644,941	91,367	27,405,071
Finland	8.6%	33.4%	7.8%	49.8%	0.3%	
	34	9	31	12	–	86
Denmark	1,000,108	353,226	1,325,654	348,202	–	3,027,190
	33%	11.7%	43.8%	11.5%	0%	
Total	693	794	227	952	25	2691
	19,353,743	24,157,098	7,638,885	22,180,739	430,656	73,761,121
	26.2%	32.7%	10.3%	30%	0.5%	

Source: Own elaboration based on FARNET data.

irregular distribution. In Poland and Latvia, they account for around half of the projects, however, in the other MSs they are much more discreet. One outstanding case is Ireland, where over 70% of the projects are categorized as socio-cultural. Projects on governance occupy a marginal place in each of the MSs studied.

Analyzing the project output of FLAGS allows for the analysis of RQ1 and RQ2. It identifies a typology of projects in accordance with the objectives of UP4, while also identifying the emergence national models. However, to develop a deeper understanding of these factors (RQ3), additional secondary data is required. At the beginning of the programming period, FLAGS indicated to the European Commission's Fisheries Areas Network (FARNET) how they prioritize each of the UP4 objective in line with their LDSs. FLAGS responded on a five-point Likert scale with endpoints very low- and very high-priority. The mean values for MSs selected in this study are reported in Table 4.

Based on these priority levels, cumulatively, 85% of all FLAGS indicated that adding value was a high priority, while diversification (63%), socio-cultural (46%), governance (37%) and environmental (31%) objectives were indicated by fewer FLAGS. Identifying the aggregate FLAG priority levels for each of the eight MSs [23] allows for a comparison

Table 4

Priority (mean value) placed by FLAGS on each of UP4 objective measures in the eight MSs studied.

MS	Adding Value	Diversification	Environment	Socio-cultural	Governance
Denmark	4.80	3.70	1.89	1.50	2.85
Estonia	4.57	4.43	2.86	3.14	3.29
Spain	4.73	3.94	2.78	2.97	2.75
Finland	4.67	3.44	2.67	2.33	4.00
Ireland	5.00	3.86	1.57	3.14	2.29
Latvia	4.00	4.00	3.83	4.50	4.00
Poland	3.94	4.18	2.53	3.88	1.81
Sweden	4.69	3.50	3.23	3.17	2.92
Total	4.55	3.88	2.67	3.01	2.99

Source: Own elaboration based on FARNET [23]; Mean value based on five-point Likert scale with endpoints very low-/very high-priority.

between how FLAGs prioritized each of the UP4 objectives and the output of the program to date.

5. Discussion

To form a deeper understanding of the typology of FLAG projects identified in the previous analysis (Table 3), the discussion on project typologies compared with the national OPs of individual MSs, and the FLAG LDS priorities are identified and presented in Table 4. This comparative analysis will form the basis for the following discussion per project type.

5.1. Adding value projects

Adding value has different meanings in different MS contexts. Specific definitions for how adding value is interested can be found in the OP of each MS with examples including: investments in fishing and aquaculture activities; producer or product certification; building the capacity of current or potential fishers (or aquaculture producers) to carry out their activities; developing the marketing, processing and distribution of fisheries and aquaculture products.

Adding value clearly appears to be the main priority across all FLAGs. The high priority is the same for each of the countries considered individually, even for many of them who later spend the money on other types of projects (as for example, Spain and Ireland). It is the main priority on the local development strategy in the eight MSs and appears in almost all national OPs, however, it is the third priority by amount of expenditure and only leads the expenditure in five of the analyzed countries (Denmark, Estonia, Finland). The two MSs with the fewest projects under the category of adding value (Latvia and Poland) are the only MSs in which FLAGs do not identify the adding value as a top priority. Similarly, there is lower emphasis on adding value as an objective in the Latvian and Polish OPs.

5.2. Diversification projects

There is likewise a diverse categorization of projects under the objective of diversification. Examples include supporting diversification inside and outside commercial fisheries, lifelong learning and job creation in fisheries and aquaculture area by operations related to fisheries and aquaculture (e.g. diversification into new markets and lines of production) diversification into other sectors such as tourism and gastronomy. At national level diversification appears in all OPs. Even in MSs where projects related to diversification do not appear (i.e. Ireland), it still appears as an objective in national OPs and by FLAGs as a priority.

Diversification appears to be a common objective for projects with a higher total budget spend. Spending on diversification projects is also irregular. However, the data on diversification projects in the sample is influenced by the size of the MSs included in the sample. Spain and Poland have expenditures for diversification projects of over €9 million. As such, diversification seems to be particularly important based on both the number of projects and expenditure. A possible explanation in the case of Spain is the diversification of fisheries activities into the tourism sector given its prominence and importance to local economies.

Only in Poland diversification was identified as the highest priority for FLAGs. Furthermore, the Polish OP explicitly mentions the importance of fisheries diversification and the development alternative sources of income for fisheries areas. In some MSs, for example, Denmark, most projects are split between adding value and diversification categories, which is consistent with the Danish OP objective of promoting tourism and hospitality and aligned with FLAG LDS priorities.

5.3. Environmental projects

Environmental projects means enhancing and capitalizing on the environmental assets of the fisheries and aquaculture areas, including

operations to mitigate climate change, by for example protection and valorization of local environmental assets; raising environmental awareness among fishermen and the local community; and minimizing the negative impact of fisheries and aquaculture activities on the environment and climate.

This type of projects accumulated significantly less funding than those categorized as adding value, diversification or socio-cultural. This seems to be quite consistent with the priorities set out by FLAGs in their LDSs, where this area is deemed less important than the other four measures, including governance projects [23]. In countries where environmental projects have low presence, like Ireland and Estonia, environmental objectives do not appear in their OPs, nonetheless most OPs there is mention of the need for environmental projects.

Across the sample, the exceptions are Latvia and Sweden where environmental projects have an outstanding position (43.8% of the total amount) and where most of the projects are led by NGOs. The Swedish OP mentions sustainable fisheries and aquaculture as well as protecting the environment, especially the Baltic Sea, and promoting the sustainable use of resources. A possible explanation is that environmental projects in Sweden tend to be bigger (total expenditure) than the average Swedish project. Moreover, nine of the 13 Swedish FLAGs are multi-funded meaning they typically cover larger areas, and in turn, have larger total budgets. As such, they are better placed to fund bigger projects tackling wider and more complex issues such as the environment supported by broader interest groups.

5.4. Socio-cultural projects

Socio-cultural projects are categorized as promoting social well-being and cultural heritage in fisheries and aquaculture areas. This includes capacity building, education and training opportunities, providing services; and addressing social issues such as the role of women in fisheries, generational renewal, and the exclusion of vulnerable groups (the unemployed, ethnic minorities and migrants).

Socio-cultural projects are the most commonplace in terms of project numbers, but second in terms of expenditure. Again, it is important to note that the distribution between MSs is irregular. Socio-cultural projects do not exceed 10% of total expenditure except for Poland, Ireland, and Latvia.

In Ireland, the socio-cultural projects are dominant despite this not being a priority for FLAGs, or an explicit objective in the Irish OP. It is, therefore, unusual that more than 70% of projects funded to date fall under this category. The definition and interpretation of what constitutes a socio-cultural project may be a factor. For example, many projects may relate to education and training as an umbrella category, despite projects having other more prominent aims and objectives.

In Latvia and Poland, the high expenditure on socio-cultural projects correlates with FLAG priority levels. However, again, there is no indicative reference to socio-cultural aims in neither the Polish nor Latvian OPs.

5.5. Governance projects

Governance as a project objective relates to strengthening the role of fisheries communities in local development and the governance of local fisheries resources and maritime activities. The wider aim is to give fishers a voice in local decision-making and resource management and to raise the profile of fishers and producers in the community.

While the small number of specific projects dedicated to governance is surprising, it can be argued that all other project categories contribute to the objective of governance in some capacity. None of the MS studied reported significant numbers of projects under this objective, although there are usually references to different aspects of governance in each of the national OPs. FLAGs indicated governance as the same priority level as socio-cultural objectives and of a higher priority to environmental projects.

6. Conclusion

From the research questions raised in the introduction, conclusions have been drawn; RQ1 enquired if FLAGs projects corresponded to the CLLD objectives of the EMFF. In answering RQ1, the results of the analysis show that a large part of the funded projects, almost 90% of the expenditure match with three of the five objectives of the EMFF (adding value, diversification and socio-cultural). A first conclusion is that at this stage in the funding period there are few projects related to the environment and even less related to increasing local fisheries governance. It is important to stress that project complexity is undoubtedly a factor here. Environmental projects and those related to governance are likely to be larger projects which involved multiple actors and lengthy inception processes. As a result, it may be the case that they are still in the development stage and, therefore, are not yet funded and reported. On the other hand, projects which fall under adding value, diversification and socio-cultural objectives are typically smaller and easier to implement, which could be a reason for them being initially more abundant as FLAGs move through the implementation of their strategies.

Furthermore, it is also important to note that the present analysis is conditional of how MSs report FLAG projects to the European Commission. For example, under the current reporting regulation, MSs are only required to report projects under one of the five UP4 objectives when the wider aims of the project may be manifold. As such, the reporting of projects by MSs is highly subjective and lacks any real understanding of the project and its impact at a local level. A key recommendation, therefore, is the need for a more open reporting system. While MSs should indicate a main objective, it would seem pertinent that they also indicate secondary or sub-categories. Doing so would develop a more holistic indication of the impact of the project. For example, a large proportion of the 70% of socio-cultural projects reported in Ireland seem to be due to a national interpretation and definition of socio-cultural projects; in other MSs the objective of this type of project may have been interpreted differently.

RQ2 enquired if different national models are emerging. It is clear from the analysis that the delivery of CLLD across MSs differs. MSs are depending on their interpretation of EU policy and the creation of national OPs, the formulation of local development strategies based on these OPs, followed by a variation in the types of projects supported by FLAGs. In Spain, for example, it is apparent that different implementation models are even emerging at a regional level. An analysis of all MSs implementing CLLD under the EMFF would be beneficial to understanding national models.

RQ3 focuses on whether the projects reported to date are aligned with national OPs and the priorities indicated by individual FLAGs. Generally, at the start of the programming period FLAGs placed a high priority on projects related to adding value. Despite this, projects reported under this objective account for only a quarter of all projects reported to date and are surpassed by projects reported under both the diversification and socio-cultural objectives. Taken literally, it can be argued that projects related to adding value are underrepresented, while the diversification and socio-cultural projects are overrepresented; an important consideration as adding value projects typically align more with the integration of sectoral and territorial forces and the development of supply chains, the creation of jobs, and wider territorial cohesion.

However, there are several limitations to the present analysis which require consideration. Firstly, as previously mentioned in relation to how projects are reported by MSs (RQ1) impacts this project typology and the reporting of project objectives requires more clarity. A significantly higher number of projects may contribute to adding value in fisheries areas, which are not reflected in the project numbers reported. For example, projects reported under the objective of diversification are likely to also add value to local supply chains and economy, create jobs, and contribute to territorial cohesion. The same can be argued of socio-

cultural projects which include projects related to tourism and gastronomy, and thus, bridge sectoral and territorial objectives. For example, a large proportion of the 70% of socio-cultural projects reported in Ireland seems to be due to a national interpretation and definition of what constitutes a socio-cultural project. Given the nature of CLLD, and how MSs implement the other parts of their EMFF program, most projects reported under UP4 include a socio-cultural element to varying degrees. Whether that is the primary objective of the project, however, is open to interpretation and may vary significantly across MSs.

Secondly, except for Finland, the MSs included in this analysis are only at the mid-point in their programs. As such, the order in which they select projects may not necessarily be based on their priorities, but rather on the order in which they receive adequate and 'fundable' project proposals. This is an important consideration and identifies the need for future lines of enquiry as the program draws to a close.

In terms of projects related to governance, FLAGs indicated this as a significant priority, and in parity with adding value and diversification (Table 4). National OPs, despite being general and aligned with the EMFF, do often explicitly refer to increasing local fisheries governance as an objective. Based on the typology of projects developed in this study, there are discrepancies here given the low number of projects reported under this objective. One possible explanation is again a cross-over in how projects are reported. Should a secondary category be added to the reporting criteria, it would seem probable that governance would be a supporting objective to many if not to all projects. After all, decision-making comes from the bottom-up and remaining local forms is the foundation of the program. Increasing local governance is widespread across the whole program and having it as reporting category for FLAG projects when only objective can be selected may be regarded as unnecessary.

The authors recommend that the data reported under CLLD should go beyond a typology of projects and should develop a wider and more holistic understanding of the impact of the program. For example, information is collected on the beneficiaries of projects could be more detailed. While the legal status of project beneficiaries is collected, categories are too broad and legal status classification differ greatly between MSs. Thus, it is difficult to know what type of beneficiary the funds go to (i.e. companies, business, associations, cooperatives, individual entrepreneurs). Additionally, a coding system for individual FLAGs would be useful. When forming a typology of projects funded, identifying individual FLAG cases would provide a more accurate analysis, allowing for the exclusions in exceptional cases and a more detail comparison across MSs. The development of a series of clearly defined indicators for measuring the impact of CLLD would also enrich the understanding of FLAG projects and would further outline how the five objectives or project categories come together in realizing local development strategies. Indicators such as jobs and businesses created, the number of beneficiaries reached, and levels of innovation would form a better understanding of whether territorial cohesion has been achieved, as opposed to just the number and type of projects funded alone. Such indicators would allow for the study of the effectiveness and efficiency of CLLD and would allow for a deeper understanding and analysis of both the program and the impact of FLAGs. What is clear from this initial and formative analysis is the need for further research, both quantitative and qualitative, to form a more detailed understanding of what is still a novel and evolving approach the development of fisheries areas.

This research is timely as the 2021–2027 programming period draws closer: a third phase of CLLD in fisheries areas. If the first period of fisheries CLLD was one of getting started and experimentation, this second has been one of consolidation and the production of early results. As we enter what will be the period of maturity, we can expect FLAGs to have more focused objectives and local development strategies. Collecting quantitative data on FLAG projects is imperative to further develop what has become a successful neo-endogenous approach to

developing Europe's fisheries areas. After approximately ten years of operation of the FLAGS, we can now during the last two programming periods study their role within fisheries-dependent communities as well as specific aspects on territorial and sectoral development. Several lines of research are identified in this initial analysis of the program which can be explored and addressed using different methodologies. This work highlights both the need for further data on the program and more robust reporting and evaluation tools to obtain these data to promote further research both at national and European level.

Acknowledgements

This article is based upon work from COST Action CA15217 - Ocean Governance for Sustainability - challenges, options and the role of science, supported by COST (European Cooperation in Science and Technology, www.cost.eu), within the working group 'Fisheries Governance.' COST is a funding agency for research and innovation networks, helping to connect research initiatives across Europe through actions enable scientists to grow their ideas by sharing them with their peers.



Thanks to the FARNET Support Unit for their support and guidance on this research, to Urszula Budzich-Tabor for her feedback on various drafts of this paper, and to Margot Van Soetendael for her guidance on the analysis of the dataset.

Funded by the Horizon 2020 Framework Programme of the European Union.



Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.marpol.2020.104111>.

References

- [1] G. van de Walle, S. Gomes da Silva, E. O'Hara, P. Soto, Achieving sustainable development of local fishing interests: the case of Pays d'Auray FLAG, *Sociol. Rural.* 55 (3) (2015) 360–377.
- [2] U. Budzich-Tabor, Area-based Local Development—A New Opportunity for European Fisheries Areas, in: J. Urquhart, T.G. Abbot, D. Symes, M. Zhao (Eds.), *Social Issues in Sustainable Fisheries Management*, Springer, Dordrecht, 2014, pp. 183–197. https://ec.europa.eu/Fisheries/sites/Fisheries/files/fame-working-paper-art97-1-data-requirements_en.pdf. (Accessed 15 April 2020).
- [3] Eu, Regulation (EU) No 508/2014 of the European parliament and of the council of 15 May 2014 on the European maritime and fisheries fund and repealing council regulations (EC) No 2328/2003, (EC) No 861/2006, (EC) No 1198/2006 and (EC) No 791/2007 and regulation (EU) No 1255/2011 of the European parliament and of the council, 2014.
- [4] S. Linke, K. Bruckmeier, Co-management in Fisheries. Experiences and changing approaches in Europe, *Ocean Coast Manag.* 104 (2015) 170–181.
- [5] L. Miret-Pastor, A. Molina-García, C. García-Aranda, P. Herrera-Racionero, The connection between recreational fishing and the traditional fishing sector in the emerging area of marine tourism: challenges and opportunities for diversification with the European Fisheries Fund (EFF), *ICES J. Mar. Sci.* fsz150 (2019), <https://doi.org/10.1093/icesjms/fsz150>. (Accessed 15 May 2020).
- [6] K. Svets, P. Salmi, J. Mellanoura, J. Niukko, The impacts of seals and cormorants experienced by Baltic Sea commercial Fishers. *Luke Natural resources and bioeconomy studies*, 77/2019, 2019. <http://urn.fi/URN:ISBN:978-952-326-854-8>. (Accessed 6 January 2020).
- [7] C. Marcianò, G. Romeo, Integrated local development in coastal areas: the case of the 'Stretto' coast FLAG in southern Italy, *Procedia – Soc. Behav. Sci.* 223 (2016) 379–385.
- [8] G. Romeo, P. Careri, C. Marcianò, Socioeconomic performance of fisheries in the 'stretto' coast FLAG in southern Italy, *Procedia-Soc. Behav. Sci.* 223 (2016) 448–455.
- [9] G. Romeo, C. Marcianò, Evaluating the economic performance of fishing systems using fuzzy multicriteria analysis in a Fishery Local Action Group in South Italy, *Fish. Res.* 218 (2019) 259–268.
- [10] J. Phillipson, D. Symes, Finding a middle way to develop Europe's fisheries dependent areas: the role of Fisheries Local Action Groups, *Sociol. Rural.* 55 (3) (2015) 343–359.
- [11] K. Kurowska, H. Kryszk, M. Gwiaździńska-Goraj, Sustainable development of coastal areas – Polish experience following accession to the European Union based on the example of Fisheries Local Action Groups (FLAGs) during 2007–2013, *Acta Adriat.* 55 (2) (2014) 145–162.
- [12] L. Miret-Pastor, A. Molina-García, C. García-Aranda, P. Herrera-Racionero, Analysis of the Fisheries diversification funds in Spain during the period 2007–2014, *Mar. Pol.* 93 (2018) 150–158.
- [13] M.D.L.Á. Piñeiro Antelo, J. Felicidade García, R.C. Lois González, Fisheries policy for sustainable development: coastal models and limitations derived from participation and power organisation in atlantic FLAGs in Spain and Portugal, *Sociol. Rural.* 59 (1) (2019) 44–65.
- [14] M.D.L.Á. Piñeiro-Antelo, J. Felicidade-García, B. O'Keeffe, Multifunctional fishing areas in policy and practice. A comparative analysis of Spain and Ireland, in: V. Paül i Carril, R.C. Lois González, J. Trillo Santamaría, F. McKenzie (Eds.), *Infinite Rural Systems in a Finite Planet: Bridging Gaps towards Sustainability*, Universidade de Santiago de Compostela, 2018, pp. 123–130.
- [15] G. van de Walle, M. Van Soetendael, Present and future EMFF. Support to Small-Scale Coastal Fisheries through FLAGs, European Commission, DG MARE, Brussels, 2017. Technical Report.
- [16] R. Freeman, G. van de Walle, U. Budzich-Tabor, FLAG support to women in fisheries and aquaculture. Technical Report, European Commission, DG MARE, Brussels, 2018.
- [17] C. Ray, Endogenous development in the era of reflexive modernity, *J. Rural Stud.* 15 (3) (1999) 257–267.
- [18] N. Ward, J. Atterton, K. Tae-Yeon, P. Lowe, J. Phillipson, N. Thompson, Universities, the knowledge economy and 'neo-endogenous rural development. Centre for Rural Economy Discussion Paper Series No. 1 Newcastle upon Tyne, CRE Press, 2005. <https://www.ncl.ac.uk/media/wwwnclacuk/centreforruraleconomy/files/discussion-paper-01.pdf>.
- [19] M. Reed, P. Courtney, J. Urquhart, N. Ross, Beyond fish as commodities: understanding the socio-cultural role of inshore Fisheries in England, *Mar. Pol.* 37 (C) (2013) 62–68.
- [20] S. Davoudi, Resilience: a bridging concept or a dead end? *Plann. Theor. Pract.* 13 (2) (2012) 299–307.
- [21] D. Symes, J. Phillipson, P. Salmi, Europe's coastal fisheries: instability and the impacts of fisheries policy, *Sociol. Rural.* 55 (3) (2015) 245–257.
- [22] C. Ray, Endogenous socio-economic development in the European Union — issues of evaluation, *J. Rural Stud.* 16 (4) (2000) 447–458.
- [23] FARNET, FLAG Factsheet. https://webgate.ec.europa.eu/fpfis/cms/farnet2/on-the-ground/flag-factsheets-list_en, 2019. (Accessed 6 March 2020).
- [24] Farnet, Area-based development in EU fisheries areas: FARNET guide 1, European Commission, Brussels, 2010. DG MARE, https://webgate.ec.europa.eu/fpfis/cms/farnet/files/documents/FARNET_Start-up_Guide-1_EN.pdf. (Accessed 18 April 2020).
- [25] European commission - directorate-general for maritime affairs and fisheries – unit D.3(2019): FAME SU working paper 'EMFF article 97(1)(a)-reporting data requirements', Brussels, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.149.01.0001.01.ENG, 2019. (Accessed 10 March 2020).
- [26] European Commission, Fisheries facts and figures, Available in, https://ec.europa.eu/fisheries/facts_figures_en?qt-facts_and_figures=3, 2020. (Accessed 18 April 2020).