

SMALL-SCALE COASTAL FISHERIES IN EUROPE

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**Executive summary
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Introduction

The necessity of improving knowledge in fisheries and especially small-scale coastal fisheries in order to analyse the conditions for their sustainable development is increasingly recognized. The three main requirements for the sustainable development of fisheries are the simultaneous present and future well being of the bio-ecological system, the human system and the management process. Knowledge on these aspects of small-scale coastal fisheries (SSCF) in Europe is generally limited, although there has been an improvement in information on the fishing sector and inshore marine resources due to the EU Data Collection Regulations (DCR). SSCF are strongly represented in all EU Member States (81% and 87% of the EU 25 whole fleet is composed of vessels less than 12 and 15 meters respectively) and approximately 100,000 crew are involved in SSCF in Europe. SSCF are present all around the European coast, even in isolated and sensitive areas.

Despite the lack of knowledge on their structure and functioning their importance and specificity are often recognised but the references are made in rather generic terms. The following statement in the Green Paper on the Future of the Common Fisheries Policy (COM (2001) 135) asking for the need of a special treatment of this sector because of *“the importance of SSCF for employment, in particular in local areas with few alternative opportunities, and because they have, if properly managed, a lower impact on the resources. Such fisheries could be the beneficiaries of a specific fisheries aid programme, subject to clear conditions for eligibility, including common definitions of “small-scale” fishing activity and “fisheries-dependency” of a coastal zone, and limited impact on competition between the Member States “fleets”* reflects this point of view. The main problem is that the complexity of the sector and the lack systematic studies lead to the formulation of assumptions rather than the presentation of intangible elements defining the profile of the sector. The evaluation of the assumptions concerning the nature and role of the SSCF is of crucial importance for the management of the sector. This aspect is analyzed and documented in the present study.

The limited spatial scale of the SSCF, their particular link to specific coastal ecosystems with their great diversity around Europe and naturally the resulting technical heterogeneity of the fishing methods make the study and management of the SSCF as a whole very difficult. A comparative approach of the SSCF could reveal useful elements about some main common features characterising all or at least the vast majority of these fisheries. This is one of the objectives of the present study.

Given the pressures on the fishing industry today, SSCF may however be in a strategically favourable position in the future compared to other sectors of the industry. The requirement to develop environmentally friendly fishing methods favours the use of static fishing gears which are the predominant gears in the European SSCF. Adding value to fresh products of good quality and their differentiation on the market within the context of competitive international trade may also be an asset for these fleets. Fishing costs, especially fuel cost per unit of production, may also be lower in SSCF using passive gears. SSCF may also be favourably situated in terms of regional planning or, equally, in terms of maintaining primary activity in coastal zones. As the mobility of SSCF is limited and the exploited resources confined in many cases to within the 12nm, one can imagine that fisheries management could be implemented easily in such contexts. However, given the diversity of activity in SSCF, monitoring could be more expensive and a different management model, including co-management with industry, may be required. At present, SSCF conform both to national regulations within the provisions set out under the Common Fisheries Policy (CFP), for the 0 to 12nm sector, and to CFP regulations on fleet capacities and technical measures. To date, SSCF have not been identified as a special case and in policy terms have largely been ignored by Europe and sometimes by the member states. The vacuum in policy has probably left SSCF exposed to competition from within the sector and from pressures from other sectors (large scale fleets, recreational fishers, tourism, aquaculture, other users of the coastal zone and activities carried out on land). The consideration of the SSCF specificities, the lacks and needs, the general context for the preservation of the resources and the ecosystems and the economic and social components can lead to the definition of a Framework for the Management of the SSCF. This last point is analysed and discussed in the present study.

Objectives and terms of reference of the study

The main goals of the study are:

1. to get a comprehensive description and analysis of at least five examples of SSCF covering different areas/fisheries/species in order to get a better picture of the diversity and of the specific conditions under which SSCF are carried out. The tender document specified that at least one case study each be from the Baltic, the Atlantic and the Mediterranean Seas. Each case study chosen should comprise around 50 vessels, preferably more, and play a significant role in the local economy.
2. to verify, on the basis of existing data the assumptions around the subject of SSCF
3. to make recommendations for the management of SSCF
4. to propose a roadmap for a coastal fisheries management plan

Methodology

Within the framework of the report, the term SSCF is used to refer to Small Scale Coastal Fleets. This definition conforms to that proposed in regulations relative to the DCR. The distinction between SSCF and Large Scale Fleets (LSF) in this study is conventional and set at 12 meters vessel length. Coastal fisheries are defined as zones in which stocks are exploited by different fishing activities, whether they be SSCF or LSF. The spatial distribution of fishing activities is considered by using, wherever possible, several geographical limits but with reference to the 12nm coastal zone defined by Community regulation.

A common method was formulated to address the different issues of the study. This approach applied, in the present case, to nine case studies:

1. EST-Gulf-Riga-pound net
2. GRC-Patraikos-net and line
3. FRA-Corsica-netters
4. PRT-Algarve-dredgers
5. FRA-Iroise-Sea-hook and line
6. FRA-Iroise-Sea-kelp harvest and dredgers
7. IRL-Irish-Sea-whelk potters
8. IRL-North-West-Ireland-crab potters
9. FRA-Martinique-hook and line on FADs.

The case studies serve as a basis for the description of the common features of these fleets and related fisheries and to verify some assumptions in terms of impact on resources and ecosystem, the level of employment, safety risks and competition with other users, etc. Information available at MS and Community level is used. The case studies cover a large range of metiers and activities. The contributors are aware that SSCF are usually poorly documented and that data fundamental to the assessment of their status including fleet economic data and data on the assessment of the resource are not widely collected and although SSCF have been receiving much more attention from both National and EU authorities in the last decade, the investment on research, fisheries management issues and enforcement in SSCF is still low.

Obtaining a comprehensive description of SSCF, so that the case studies can be compared with other competing users, requires that for each set of criteria (biological, environmental, economical, sociological...) a set of relevant items and indicators are established. The description of competitors was also organized according to a typology of interactions between SSCF and competitors. Comparisons between case studies and with competitors were based on a qualitative analysis of the indicators available in a common matrix, but also using analytical approaches.

Key results from comparison between case studies and with competitors

The analysis of the CS shows that 8 out of the 9 fleets exploit coastal areas. The only exception concerns the FAD fleet in Martinica. SSCF vessels, being of small size, have in general a relatively small displacement capacity. Small size often confines their activities to limited and hospitable areas; often they are able to exploit a stock only during a brief phase of its life cycle: they are unable to pursue a target in waters outside the area in which their size allows them to perform. A rough analysis of the degree of dependence of national fleets on territorial and coastal waters confirms the strong dependence of < 12m vessels on this space. However, vessels 12-15m are also highly dependent on this zone and vessels 15-30m in length also exploit fish in this area. The coastal zone is not only exploited by small sized commercial vessels but also recreational fishers. As a result there is increased pressure on the stocks and/or areas that are exploited by SSCF.

For the SSCF case studies, the most significant external competitors, when such were identified, are LSF, both from the point of view of access to stocks and fishing zones and also in terms of market access and domination. The second and third principal sources of interaction with SSCF are recreational fishers and illegal fishers respectively who put pressure not only on resources but also on access to fishing zones in a number of cases. Illegal fishing also distorts the market for fishing products which compete with the sale of landings by legal fishers who are subject to higher production costs due to taxation, social contributions and compliance with licensing and other regulations. There was less information on competition arising as a result of the economic development of coastal zones, probably owing to the case studies selected. Anticipated problems relate to water quality, invasive species and to the spatial occupation of the littoral and coastal zones. Coastal zones are also the focus of protection measures for ecosystems and the environment in general and these are the source of increasing constraints on the occupation of coastal space.

In many instances, SSCF may be the only fleet exploiting a particular niche resource. In cases of resources confined to specific ecosystems accessible to SSCF, they undoubtedly have the potential to create overcapacity due to internal competition and to over-exploit local fisheries. Where comparison is feasible, it is concluded that SSCF are less harmful to stocks than LSF. The fact that the SSCF use static gears (at least the vast majority) explains this result. However, they emerge in general as more harmful than recreational fisheries and this is probably due to their larger fishing effort. This conclusion is mainly drawn from the fishing mortality generated on the stocks exploited by different fishing types. The problems of discarding by mobile gears are well documented and, although a case history of this kind was not included here, there is no reason to suppose that the consequences of trawling in coastal areas by SSCF differ from those of LSF. Although smaller quantities are discarded and discards as a proportion of the catch are lower in SSCF than LSF, sometimes the ratio discards/catch can be higher in SSCF. It should be stated also that the coastal ecosystems are often key systems for the juvenile stages of several species and in this case fishing activities in these areas should be seriously controlled. Finally, even if the diversity of the catches in some cases is the same in SSCF and LSF, the flexibility of the local markets principally addressed by SSCF can explain the reduced amount of discards.

Consideration of the environmental effect of SSCF was handicapped by the nature of CS and the lack of appropriate comparable documentation. SSCF are usually – though not invariably – associated with passive (and particularly static) gears which are regarded as more environmentally friendly. However, while non-mobile gears are seen to be less environmentally harmful their use can be damaging to corals, mærl and similar biogenic substrates. In any case, static gears can be considered as less harmful than the mobile ones operating in the same ecosystems.

Improvements in gear, vessel design, mechanization and computer-operated technology over the past decade made the operation of most of the fleets more efficient. Despite that, the number of days at sea remains controlled by weather conditions for SSCF while the main controls for LSF are regulatory prohibition periods. The traditional character of the SSCF and the low capital invested limited the technical improvements in the operation of these fleets compared to LSF.

The global trend for these case studies is on average downward, and this confirms more general developments in the numbers of vessels in each country. As indicated above, decommissioning schemes have partly contributed to this evolution whereas some of the segments were not intended to be reduced from the point of view of MAGP's objectives. The technical characteristics of the SSCF vessels are very heterogeneous and it is not possible to distinguish SSCF from LSF in terms of vessel average age. Most SSCF case studies have an average of fewer than three persons per boat, and the average of all case studies is 2.0 compared to 5.3 for LSF. It was not possible to define a homogeneous education level between case studies.

Owner-skippers are believed to manage most vessels. Most boats are privately owned and most owners have only one boat. Generally, whenever owners possess more than one boat it is because a second vessel is a technical requirement for the type of fishing concerned. A large proportion of owners originate in traditional fishing families. The vast majority are in continuous contact with the sea and the locality of their base ports. Investment by non-related enterprises in SSCF would appear to be rare.

Whether in terms of total value of capital or capital necessary for one fisherman to work, the investment in SSCF is generally more limited than in the LSF. The variability of capital investment within the SSCF is high depending on the size and age of the vessels, and the gears used. The fisher's investment is not necessarily limited to material capital but also to intangible capital (fishing rights/privileges) in regulated fisheries. The cost of these fishing rights represents, depending on the cases study, between 26% and 50% of the average value of investment

The contribution of SSCF to employment is important at EU level. Estimates from the case studies and the CFR reveal as many crew (100,000) in vessels <12m as in larger boats. A given amount of capital invested in SSCF generates a higher level of employment. The fishing mortality generated on the fish stock per crew member is lower in SSCF. These elements suggest fundamental differences in the economic characteristics of jobs in SSCF and LSF.

Small-scale vessels do not use exclusively passive gears. Two of the nine CS selected in this study includes SSCF vessels employing active gears. At European level, the main and secondary gears declared in the EU25 CFR indicate that the use of passive gears is a strong feature of the small-scale vessels for all European countries. SSCF are mainly involved in passive gears but active gears cannot be ignored because they mainly concern the biggest and the more powerful SSCF vessels. SSCF have a higher degree of polyvalence than LSF.

SSCF activity expressed in terms of days at sea is 150 days per annum compared to 190 days for LSF. Various explanations are available for these differences. Some segments are constrained by the behaviour of the stock, inshore fisheries management regulations and also by the meteorological conditions. In some cases, the time dedicated to the sale of the landings or the maintenance of the gear limits activity at sea. SSCF vessels are not intentionally part time even if some fishers develop other non fishing activities. Fishing trips on average last 8 hrs which allows SSCF operators to pursue a more family-friendly life style than crew in LSF.

The short trip duration which characterises SSCF compared to the majority of LSF, results in the supply of fresher products by SSCF. SSCF generally has a higher unit production value than LSF. In some cases the small size of the vessels limits onboard handling and storage facilities or the absence of appropriate infrastructure in the ports may reduce the quality of the product. There is no standard marketing plan for SSCF landings. Certain products are marketed locally or regionally in niche markets and other products are exposed to very competitive world markets. In the vast majority, however, SSCF do not take advantage of the Community withdrawal price system. No eco-labelling mechanism has been identified in the selected case studies. However, the marketing of products is in some cases organized according to a system of labelling which makes it possible to identify the product on the market. The system contributes added value thus securing a better return to fishers.

There is a dearth of information on the question as to whether SSCF are more exposed to safety risk than LSF. Even when statistical data exists, it is believed that a higher proportion of work-related injuries in SSCF are misreported compared to LSF. It is important to emphasise that SSCF are more exposed to adverse weather conditions than LSF, increasing the risk of crew injury. On-board living conditions in SSCF are more exposed and vessel safety features may be inadequate in many situations. The small number of crew on smaller vessels is conducive to the risk of accident especially when there is only one fisherman on board. Moreover, multiple use of an area for fishing and other activities such as aquaculture, wind farms and recreation also raises the risk of collision in inshore areas. Fisheries regulations have an impact on the working conditions of the vessels and crews but this is not specific to SSCF.

A significant number of SSCF vessels remain in the fleets of different MS and this could be considered as indicating SSCF are attractive. In several cases, the survival of SSCF is mainly rooted in limited diversification possibilities but in some cases by an influx of fishing investment from LSF segments and this is true in numerous areas throughout Europe. Based on the CS, it appears that labour or capital productivity per hour is equivalent to LSF. It was, however, difficult to reach conclusions on the profitability of the fleets because of the lack of data. The limited number of CS suggests that income from fishing is higher than the minimum and sometime average wage in the MS. The cost of fuel as a proportion of earnings in SSCF in general is lower than LSF because LSF are generally composed of boats using towed gears and so are very fuel-demanding while SSCF use mainly fixed gears.

The issue of the attractiveness of SSCF was approached by examining the age structure of the fishers. The average age is quite high (46 years for CS) but it is difficult to distinguish SSCF from LSF. Just as LSF currently does, SSCF may well experience a reduction in recruits but this is difficult to quantify. It is expected that the attractiveness of a life in the sector could be considered low, an observation which is sharpened by often unpleasant working conditions and, more especially by the declining prospects for the fisheries sector. When SSCF are open access fisheries, this adds another element of uncertainty to their future because intra-SSCF competition can become an issue at any time.

In several cases the economic characteristics in which SSCF occur reduce their relevance to local communities but in other circumstances reliance on SSCF is very high and in these cases they play a major role both in the economy and the social structure of those areas. Whatever the case, SSCF maintain job opportunities in the primary sector and throughout the year in coastal zones and this could be very important in the long term. SSCF have the potential to be an attractive and profitable activity in coastal communities. This is sometimes hindered today by uncertainty over the future availability of stocks because of poor management.

The level of involvement by fishers' representatives is relatively homogeneous among case studies, with some exception however. Participation in local or regional institutions is significant, average or weak in national institutions and almost non-existent at Community level. Participation of SSCF in producer organisations (POs) is also low. As a result low political power makes them extremely vulnerable to pressures arising externally especially from LSF and other competitors. In some CS, participation by SSCF in management is actively facilitated by state agencies and the result is positive even if it could be improved. The reasons for varying participation in representative organisations, from local to national to European level were also explored in the report.

Two broad categories of fisheries management measures have been distinguished in practice – technical conservation measures, and access regulation measures - and studied at different scales (EU, National, regional or local). Conservation measures are not solely Community decisions; they are decided in a quasi-equal way at EU, national or regional/local levels. Access regulations are mainly established at national or regional/local level, their objective is in general to restrict entry to the fishing sector in order to balance fishing capacity with local stock productivity. These measures are often complemented by individual fishing privileges regulating conditions of access to specific fisheries. These measures are largely local in origin illustrating that SSCF are subject to access regulation, sometimes more than LSF. However, open access or effectively what can be regarded as open access situations

are common in EU SSCF. The rights or privileges in force in the CS, when they exist, do not protect SSCF very effectively against their competitors whether that competition is internal or external. This is a major source of uncertainty for the future of SSCF. The other main risks to future viability of SSCF, is poor fisheries management and policing.

Common features which might be useful for the identification of SSCF

The complexity of the coastal ecosystems and related socio-economic contexts is responsible for the pronounced heterogeneity of the SSCF sector. The SSCF have received a disproportionately low level of attention relating to monitoring and research. The improvement of knowledge about the structure and functioning of the fleet and fisheries is now of crucial importance for their identification and their efficient management on a mid term basis. Operational definition of SSCF for short term policy purposes could be based on a set of indicators which are available in many cases.

A key issue for the identification of **coastal** fleets is the assessment of the degree of dependence to coastal zone (<12 nm). The technical limit of 10 meters long appears to be a too restrictive proxy for the definition of coastal vessels when information on fishing locations is not available. A limit of 12 meters seems to be more relevant or this could be 15 meters insofar as the majority of the under 15 m vessels are operating inshore. In some cases, the geomorphology of the coastal zone brings the SSCF and LSF fleets in proximity and this is the case of areas with limited continental shelves. Special consideration to these cases is certainly needed because the competition is increased. Fleet segmentation in length categories could be a useful tool for management. The trip duration could also be used as a proxy because it defines in many cases the range of operation of the vessels. Trip durations of less than 12 hours and up to 24-36 hours could be applied to identify coastal vessels. The SSCF are mainly involved in passive gears (dominance of nets and long lines) but the active gears cannot be ignored because they mainly concern the biggest and the more powerful SSCF vessels.

The **small scale nature** of the fishing activity is mainly related to capital costs (material and intangible). Whether in terms of total value of capital or capital necessary for one fisherman to work, the investment in SSCF is generally more limited than in the LSF. It is difficult in the context of the study to define an investment value that clearly distinguishes small-scale and large scale fishing units. However, trigger values between 150k€ and 300k€ per vessel could be tested in a first approach for the separation of SSCF and LSF invested capital and in any case the cost of living in each country should be considered suggesting the use of a relative scale, common to all countries, to define the level of capital investment defining SSCF and LSF. The fact that the owner be the skipper of the vessel is not strictly specific to SSCF characteristics but it can be used as a complementary variable to discriminate SSCF from LSF.

On a mid term basis, it seems to be crucial to **develop a typology of the SSCF** so that policy, management and monitoring can be specifically designed to cater for the sector. This typology can be a useful tool for the development of Fishery Management Plans (FMPs) and the relevant regulation measures, the design of supporting structures and development of structures at supra-regional level. The present study shows clearly that despite the very local character of the selected fisheries, a lot of common elements appeared in different sectors (economic, social, technical) and these similarities can be used in the design of measures covering broad scales. The definition of the SSCF, which is a condition for its efficient management, will result from this typology.

Recommendations for Management measures

The comparison of case studies and description of the EU SSCF, were used to identify common issues, constraints, problems and potentials in European SSCF from which policy can be developed to promote sustainable and viable development of SSCF. Initiatives and contributions of the EU, the member states and the involved stakeholders could assist SSCF to achieve these objectives.

Fisheries regulation

- **Develop a classification of the SSCF within the EU fleet** in order to provide more efficient and equitable distribution of supporting measures and as a tool for fleet management. The classification could be based on the recommendations of the STECF Sub-group on fleet size segmentation and fleet-fisheries-métier based approach¹. The CFR should also be improved by including not recorded commercial fishing vessels, by integrating more gears (at least 5) and more reliable information about their use.
- **Improve exclusivity of access to resources and space for SSCF.** SSCF suffers from competition and coastal areas should be reserved for the SSCF to preserve their existence. More specifically areas should be dedicated for vessels using selective techniques with low impact on the environment. The activities of larger boats, especially those using mobile gears could be conducted outside these areas.
- **Generalize fishing access privileges in SSCF** with reference to the relevant regulatory tools (numerous classes of licences with individual effort or/and catches quotas) in order to avoid the race to fish, overcapacity and the consequent potential overexploitation of coastal fisheries. Individual licences should be formulated for the relevant metiers (species, gears and areas). Access to a metier licence category would be determined by the status of the resource and the objectives and targets established in FMPs.
- **Define the share of the different fleets, SSCF as well as LSF but also recreational fishers to the global level of exploitation** within the management decision-making process.
- **Define guidelines concerning the transferability of fishing access privilege** in order to improve transparency, avoid concentration to fewer people and to fewer regions. These guidelines should consider the optimization of the exploitation of the resource and the social importance of SSCF. The fishing access privilege should be such that it increases the attractiveness of the sector and discourages opportunistic behaviors
- **Improve the transfer of information and experience on management between similar fisheries.** A network of SSCF could be organized. The representation of SSCF at Regional Advisory Councils could be improved.

Monitoring

- **Support an efficient data collection systems within the DCR context and intensify data collection for SSCF.** In several cases the SSCF are under-sampled, the quality of the data is poor and data particular to SSCF may be omitted. The development of the segmentation proposed above will provide an excellent base for the homogenization of the sampling protocols and the estimation methods.
- **Extend the electronic monitoring and control possibilities** for fishing activities to the coastal zone. As spatial aspects are of crucial importance for SSCF enlargement of electronic monitoring of the activities could be very useful both in terms of control and data collection and would improve understanding of interactions of different fleet segments

¹Commission Staff Working Paper, Scientific, Technical and Economic Committee for Fisheries (STECF) STECF Sub-group on Research Needs (SGRN), 2006. Revision of the Biological Data Requirements under the Data Collection Regulation(meeting coded SGRN 06-03) Brussels, 27 November - 1 December 2006
<http://stecf.jrc.ec.eu.int/meetings/sgrn/0603/report.php>

- **Any innovation in fishing technology must be subject to multidisciplinary cost-benefit studies** in appropriate conditions before its introduction is permitted.

Studies and research

- **Develop a typology of the SSCF** so that policy, management and monitoring can be specifically designed to cater for the sector. This typology can be a useful tool for the development of FMPs and the relevant regulatory measures, the design of supporting structures and development of structures at supra-regional level. The present study shows clearly that despite the very local character of the selected fisheries, a lot of common elements appeared in different sectors (economic, social, technical) and these similarities can be used in the design of measures covering broad scales. The definition of the SSCF, which is a condition for its efficient management, will result from this typology.
- **Study more precisely the spatial dimension of SSCF in parallel with the other fishing activities.** Definition of the spatial dimension of SSCF is of crucial importance for the future of the sector and this is also true for the coastal resources. A detailed spatial study of the economic and biological aspects of the activity of different directly competing fleets will permit the definition of spatially based management. The definition of access rights in coastal fisheries based on the degree of dependence of the fleets on this space and their alternative possibilities seem an efficient principle to reduce both the competition between fleets and consequently the pressure on the coastal resources.
- **Study the nature of interactions and complementarities with other activities.** This is very important for activities affecting the market of the SSCF products but also for sectors competing for space and local manpower (like tourism, etc)
- **Analyze how SSCF can be included in integrated coastal zone management** because SSCF receives pressures from increasing activities in the coastal zone.
- **Develop specific studies for resources with particular or fragile/vulnerable biological or exploitation characteristics.** This is especially true for cases where strong conflicts between fleet segments or gears or even with other activities exist.
- **Improve knowledge of habitats,** their nature and importance for fish recruitment and production. Moreover, the natural and anthropogenic changes induced on these habitats by the different activities in the coastal zone should be evaluated in order to define the responsibility of each one

Other structural actions

- **Develop structures and a context to support SSC fishers in diversification activities.** The aim of this kind of action is to decrease the pressure on the resources, to maintain the human capital and the accumulated knowledge in the sector (traditional transfer of the techniques) and finally to preserve the integrity of remote communities. Actions such as fishing-tourism can be developed in selected places. The sometimes low educational level of the SSC fishers and the difficulty of involving them in activities outside the fishery sector suggest the need to develop specialized structures to support them in their diversification activities
- **Promote SSCF products.** These actions will improve the SSCF sales and the price received by the producer. A promotion based on product quality and reduced environmental impact of SSCF can provide an advantage in the market for SSCF. These actions should be accompanied by the development of traceability systems. Adapted individual or collective infrastructures for better handling of the products should also be supported

- **Develop actions on information and education** in order to improve the understanding of the necessity for regulations, increase safety and the quality of products, enhance exchanges between fishers and also with other stakeholder groups and finally the integration of SSCF in global management of the coastal zone. In fact, these actions seem necessary in order to improve compliance with regulations. Training to business management, bookkeeping should be reinforced

Roadmap and structure of coastal fisheries management plan

A management plan is “a formal or informal arrangement between a fisheries management authority and interested parties which identifies the partners in the fishery and their respective roles, details the agreed objectives for the fishery and specifies the management rules and regulations which apply to it and provides other details about the fishery which are relevant to the task of the management authority” (FAO 1997). Implicit in the detailing of agreed objectives is that new targets to improve the position of the fishery are agreed. The degree to which these targets are achieved needs to be monitored and the plan should be adapted in cases where the objectives or targets are not being achieved.

How can FMPs be developed and implemented given the characteristics of SSCF in Europe today? There are a number of important entities, structures and processes (underlined) in the FAO definition that are important and which determine the possibility of developing FMPs for European SSCF. In fact a number of questions, implicit in the FAO definition, require clear resolution before FMPs for SSCF in Europe can be developed.

- **Who is the management authority?**

The CFP retains competence over the management of European fisheries including SSCF although national administrations have a degree of authority over the management of the coastal zone inside 12nm. Nevertheless the CFP is involved in detailed regulation in SSCF down to setting, for instance, minimum landing sizes for local stocks although in the review of the CFP there is a stated ambition of achieving greater stakeholder involvement at local level. This does not constitute devolution of management to local stakeholders although these local groups can institute additional regulation. For local SSCF with local characteristics and with local stakeholder groups, therefore, who is the management authority and who should it be? This must be clear in order to give the ‘interested parties’ confidence to develop the FMP.

It seems unnecessary for the CFP to be involved in designing and imposing particular regulations for the management of local stocks in SSCF. The spatial variability in the character of these stocks and fisheries means that local regulation must be designed to suit local condition and character. Rather than being involved in details of regulation in the case of SSCF, the CFP should provide clear guidelines and terms of reference for management of SSCF that outline the broad objectives to ensure compliance with EU directives, the precautionary approach and sustainable development. It should also hold national administrations to account with respect to auditing the development and implementation of FMPs.

The management authority could therefore be a hierarchy overseeing implementation of the FMP

- CFP (defines broad objectives and framework of FMPs, requires national administrations to progress the implementation of FMPs in SSCF)
- National with Regional Administrations (oversees the development of the FMP, transposes the CFP objectives into national policy and defines additional policies, establishes the access and licencing policies conducive to management planning, provides fisheries monitoring programmes that demonstrate how the FMP is implemented.
- Regional or Local structures (involving the SSCF participants who exploit the stock for which the FMP is developed, designs the local regulations consistent with biological, economic and social objectives set out by national and regional administrations)

- **Who are the interested parties?**

The management plan(s) is/are an agreed set of actions under the control of the interested parties and which aim to protect the biological, economic and social stability of the resource and its users. The interested parties are mainly those SSCF participants who rely economically on the resource for which the FMP is developed and the hierarchy of management authority presented above. All of the users of the resource need to be involved. There is however a broader group of interested parties from other competing sectors in the Coastal Zone. However, given the very poor representative structures in SSCF it is vital that these structures are enhanced prior to SSCF participating in CZM or in fora with other stakeholder groups if SSCF is to protect its position in the coastal zone.

- **What are the objectives?**

Clarification of objectives for the FMP is extremely important as the FMP itself is a reference document for the future development of the SSCF. The typology and classification of SSCF proposed above which will identify the particular characteristics, value and requirements of SSCF must be reflected in the objectives of the FMP. More precisely, the following points are considered important for the management of the SSCF and they are discussed in the main report.

1. *Reconsider the role of the SSCF.*
2. *Recognize the dependence of SSCF on the coastal and territorial waters and allocate SSCF special rights in this space.*
3. *Manage access to SSCF to reduce internal competition.*
4. *Decrease internal and external competition.*
5. *Improve the participation in decision making structures.*
6. *Recognize the special character of SSCF in the management framework.*
7. *Decrease the isolation of the SSCF communities.*
8. *Integrate them in the Coastal Zone Management context.*
9. *More Knowledge is necessary for the efficient management of SSCF.*

- **What are the targets?**

The targets, like the objectives, relate to biological, economic and social objectives for the fishery. These targets must be realistic, achievable and measurable. Licencing and access policy for SSCF in national administrations must establish the conditions that will enable and facilitate the achievement of these targets e.g. a target economic return that is possible is related to the level of access that is given to the resource.

- **What biological, economic and social monitoring programmes are needed to monitor implementation of the FMP?**

Monitoring programmes must be designed so that all of the targets set out in the FMP are measured. This is the responsibility of national administrations and scientific institutes and with the cooperation of the 'interested parties'.

- **Structure and design of the FMP in relation to licencing policy**

SSCF in Europe, as this study shows, are extremely diverse and operate in an array of different contexts, economies, social and cultural norms and exploit a vast array of biological resources, individually which may be small but collectively are of equal importance to the non SSCF sector. How can an FMP be developed for this complex sector? There is a number of design issues. For instance, FMP should generalize fishing access privilege for SSCF as well as LSF, with reference to the relevant regulatory tools (licences with individual effort or/and catches quotas) in order to avoid the race for fish, overcapacity and the consequent potential overexploitation of coastal fisheries. Licences should be

formulated for the relevant métiers at the most appropriate levels (species or group of species, gears and areas). Access to a metier licence category would be determined by the status of the resource. Finally, the experience of FMPs in other non EU countries could be used to study the benefits and drawbacks of the different type of FMP structures.