

Chapter 10

National planning and management measures

10.1 Fishing effort management and rights of ownership in national intervention policies

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The Italian fisheries management system is based on fishing effort regulation systems. Fishing capacity restrictions form part of the input measures that directly affect the extent of the fishing effort, since this variable allows the real impact of fishery activities on fish stocks to be determined. Fishing effort always depends on four main components:

- the number of fishing vessels;
- the average potential capacity of each vessel;
- the average intensity of fishing operations per unit of time, which measures the proportion of average potential capacity actually used;
- the average time spent at sea.

Input control measures affect the main components of the fishing effort and include:

- restrictions of access to a fishing area,
- restrictions on fishing activity (such as individual effort quotas and fishing days),
- fishing capacity restrictions.

Fishing effort management has been introduced at an international level through the implementation of a system based on fishing licences and control of the fishing capacity.

Fishing licences were introduced in Italy in 1982 with the approval of Law No 41/82; this established the principal that only those holding a regular fishing licence are entitled to exploit fish resources. The purpose behind the introduction of licences, or permits, consists of the twofold need to limit the excessive expansion of the fishing effort and/or to prevent excessive fleet overcapitalisation in any particular fishing area.

The issuing of licences addresses needs on two levels; firstly, administrative and registration needs, in that the licences enable the management authority to obtain a certain amount of information about the fleet. Secondly, management needs, in that once the structure of the fishing fleet is known, appropriate management measures can then be taken, based on the characteristics of the various fleet segments and their specific impact on resources.

Fishing capacity reduction

Regarding capacity reduction, the Multi-annual Guidance Programmes (MAGP) laid the foundations for a consistent decrease in the numbers and capacity of the national fleet in terms of GT and engine power, followed by the entry-exit regime. From the early 1980s until the start of this century, the national fishing fleet was subject to reduction constraints imposed by 4 different Multi-annual Guidance Programmes (1983-86, 1987-91, 1992-1996, 1997-2001 extended to 2002). In 2002, the European Union approved a new management regime for EU fleets (Regulation (EC) No. 2371/2002). On the basis of this regulation, fishing capacity reduction objectives are established in relation to two reference parameters (fleet tonnage and engine power, as of 1 January 2003) and through continuous monitoring of the differential between new entries and exits from the fleet in order to have a correct and true assessment of the fishing capacity.

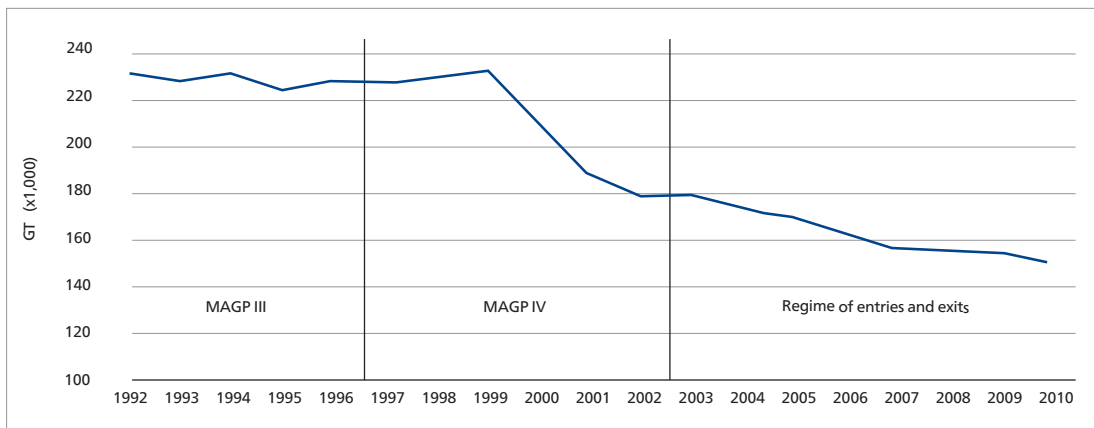


Figure 10.1 - Fishing capacity trends in gross tonnage for the period 1992-2010, Italian fleet (MAGP = Multi-annual Guidance Programme) (Source: ALP-MiPAAF).

A further incentive towards fleet reduction was provided by European Structural Funds, specifically those related to fisheries, which financed the voluntary removal of vessels.

Alongside the programmed fishing capacity reduction stimulated by public funding, in recent years there has been a voluntary departure from the sector due to the general old age of the fishing fleet and the fisheries crisis caused by low physical productivity and increasing operating costs.

Results achieved through fishing capacity reduction

The reduction in the number of vessels and gross tonnage of the fleet, according to the objectives pursued by the fishing capacity containment programmes, should have led, in the medium to long-term period, to an improvement in the overall state of resources and the attainment of a sustainable balance between the capacity and fishing possibilities.

The positive impact expected in terms of resources was lower than expected. The state of resources in Italian seas is characterised by overfishing conditions in many commercially important fish stocks (SIBM, 2010). The fishing capacity reduction has not had a uniform impact on fish resources in all fishing areas and for all fishing systems. The limited impact on resources by the EU fishing capacity reduction programme is due to various factors; first of all, it should be emphasised that the fishing capacity is just one of the factors that determine fishing mortality.

The number of days at seas, in particular, contributes to defining the fishing effort; analysis of trends in fishing effort, calculated as the product of capacity (GT) and activity (fishing days per boat) over the last 10 years has revealed that, in spite of a constant fleet reduction, the effort has sometimes increased (see fig. 10.2). The trend has been changing since 2008, due to the sustained increase in the cost of diesel, as fishermen have had to limit the days at sea to reduce operating costs.

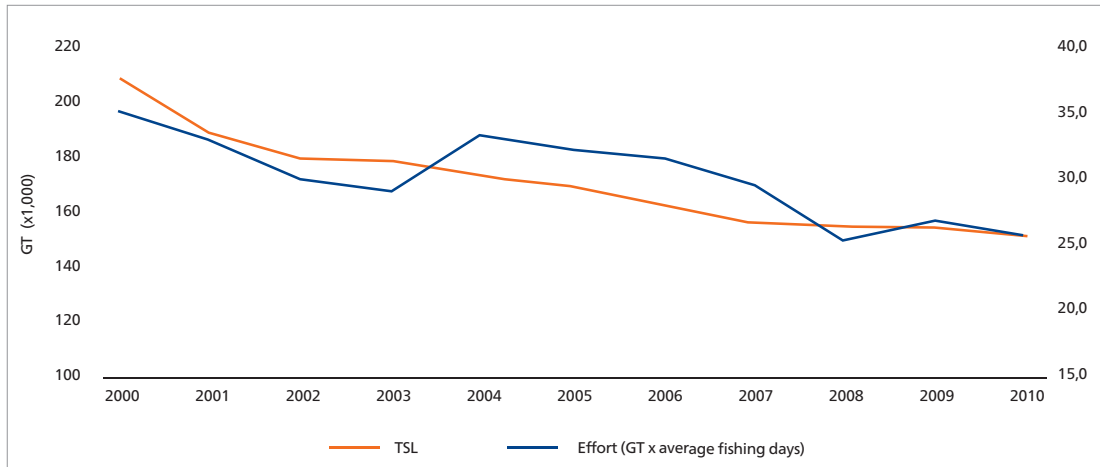


Figure 10.2 - Fishing capacity and effort trends, 2000-2010, national fleet (Source: MiPAAF-Irepa).

The above definition of fishing effort does not account for the impact of technological progress, which, especially in recent years, has led to an improvement in efficiency, particularly in certain segments, such as trawlers. Despite the existence of a “hidden” fishing effort, estimates based on “indirect” overfishing indicators, such as catches per unit effort, have in most cases shown a constant trend on average, with periodical fluctuations of little significance. During the 2004-2010 period, for example, the average productivity per unit of fishing effort for the trawler fleet was constant, fluctuating at around an average of 4.5 kg per unit effort (fig.10.3).

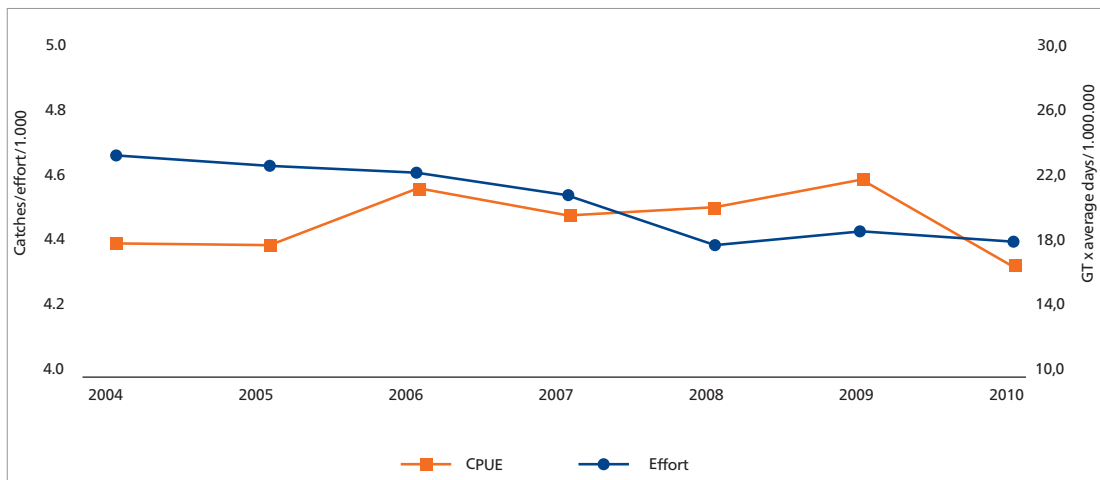


Figure 10.3 - Effort and catch trends per unit effort (CPUE), trawling fleet, 2004-2010 (Source: MiPAAF-Irepa).

Advantages and disadvantages of the current fishing effort-based management system

The adoption of input control measures, which include control of the fishing capacity, can lead to various advantages in comparison to regulation through output control.

In the first place, with the multi-specific fisheries typical of coastal waters, input restrictions are more efficient and easier to apply and monitor. Another advantage with production factor control measures is that fishing companies are less inclined to make false declarations, and there is also a reduction in discarding at sea and high-grading practices (FAO, 1997).

The main disadvantage of a regulatory tool based exclusively on fishing capacity reduction is that it only addresses one of the components that determine fishing mortality, i.e. capacity. This means that where only one input factor is controlled, operators will be inclined to replace the regulated factor with those not subject to control. Furthermore, in cases where additional income is generated after adopting the programme, companies react by increasing the level of technology used in order to improve catches and reduce the time they require. This type of behaviour entails overcapitalisation (or capital stuffing) of the fishing area and increasing of vessel "catchability" (from the term "catching ability"). In brief, unless it is combined with other restrictive measures, management through licenses will lead to a higher fishing effort than that envisaged, thereby invalidating resource conservation objectives. These arguments partially explain the meagre impact that Italian fishing capacity reduction, although substantial, has had on the overall state of fish resources, despite the adoption of additional restrictions and measures over the years. Licenses have in fact been imposed at a national level as part of management programmes that have also included the introduction of protected areas, restrictions on equipment, size limits, limitations on the number and/or duration of fishing operations for certain types of fish and temporary cessation of fishing activities. The current economic crisis, which is affecting numerous fishing fleet segments, both in Italy and elsewhere, has therefore triggered a debate on the effectiveness of the management measures applied to the sector up to now, encouraging the growth of a different approach to fishery management, through the application of innovative instruments not yet widely used in the Mediterranean area.

Property rights

Management based on fishing effort is part of a traditional approach to fish resource management that implies the existence of a hierarchical relationship between the management authority, which holds ownership of the resources in the name of the community, and those required to respect the rules governing the exploitation of a public resource.

This centralised, hierarchical structure is in contrast to a system based on greater involvement by those directly concerned, to whom property rights can be assigned. These are traditionally divided into property rights over catches (individual and transferable quotas) and full or stunted territorial use rights in fisheries (TURF) or co-management respectively.

In the case of co-management, a careful division of roles and competences is required between the central management authority and those directly involved in the exploitation. In recent years there has been a significant global development of co-management experiences regarding coastal resources¹.

¹ Examples of co-management have recently been developed in Europe and North America and have been the subject of a considerable amount of written material (Jentoft & McCay, 1995; Nielsen & Vedsmann, 1995; Hanna, 1996; McCay & Jentoft, 1996). This co-management experiences have been operating for longer in developing countries of Asia, Africa and Central America and also received considerable attention (Pomeroy & Pido, 1995; Normann *et al.*, 1998; Brown & Pomeroy, 1999).

The Italian experience in the area of property rights is still very limited; aside from the management of the hydraulic dredge segment by the Bivalve Mollusc Management Consortia, which is described below, there are no other experiences in Italy involving co-management systems or assignment of territorial property rights. Recently, through the provision of Article 37 of Regulation (EC) 1198/06 on the European Fisheries Fund - (EFF), which provides for the possibility of financing the drafting of local management plans, local communities have been provided with an intervention tool that is totally innovative in relation to presently available management tools. The novelty of this specific type of plan lies in the introduction of self-management criteria through the assignment of territorial property rights to the consortia themselves.

Historical background to the hydraulic dredge management system

The course of developments in Italy leading to the introduction of the co-management system for Adriatic clams began in the early 1970s, when the stock showed no signs of overfishing, and passed through a period in the 1990s when the stock was close to collapse, to arrive at 2002, when, through the introduction of management changes, the stock was granted a possibility of recovery.

From the early 1970s until the early 1990s, the sector was characterised by a consistent increase in the number of vessels and the level of harvesting and exploitation of resources grew significantly; hydraulic dredges operating in the Adriatic increased from 384 in 1974 to around 800 in 1994. The excessive fishing effort and lack of stricter regulations ultimately provoked a change in the management strategy that the central authority had followed until then, with the adoption of a model that provided for the progressive transfer of management responsibilities to those directly involved.

Thus, the First Clam Plan² was approved in 1996, limiting fishing to 12 homogenous areas, with a Bivalve Mollusc Management Consortium established in each of them³.

A moratorium was also imposed on the release of new licences until 1 January 2009, by which time a further revision of the legislation was scheduled. The need to restore the balance between the fishing effort and stock quantities was addressed through the planning of a permanent decommissioning scheme. The number of boats to be removed was determined on the basis of a scientific assessment of clam stocks for each individual fishing area. During the initial phase, the First Clam Plan required the definitive removal of 36 hydraulic dredges, specifically from districts where an advanced state of crisis was confirmed.

The equally generous and surprising response from the boat owners allowed rapid advancement to the next stage, with the approval of the Second Plan, lasting two years and centred on a twofold objective:

- increasing the number of withdrawals (109 permits for hydraulic dredges were withdrawn under the Second Clam Plan),
- increasing the level of responsibility assigned to the Consortia.

The reduction of the fishing effort favoured a recovery of the resource. Current harvesting levels are lower than those possible with the available biomass, and merely the need to adjust the offer to suit demand is causing producers to limit their activity and the quantity of daily catches.

² Law no.107 of 28/2/96 (published in Official Gazette no. 54 of 5/3/96)

³ The Ministerial Decree 10/4/97 (published in Official Gazette no. 129 of 5/6/97) entrusted the management of bivalve mollusc fishing to self-governing consortia, established and regulated by Ministerial Decree no. 44 of 12/01/95 (published in Official Gazette no. 46 of 24/2/95).

The positive effects of the adopted regulatory system are:

- the increase in quota values caused by the license ban and the constant increase in profits
- the reduction in the quantities harvested in favour of the size and, in general, the quality of the resource
- the elimination of the “race to fish” tendency and competition between fishermen in the same district.

The weakest point in the division’s management system is its lack of adequate measures for facing environmental crises, which cyclically recur in all districts of the Adriatic Sea.

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10.2 The multi-level management system for shared and migratory stock

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Fisheries management in Italy is characterised by multiple management levels and a systematic fragmentation of responsibilities, with various different players participating in the governance process. This type of management, described as multi-level, is a consequence of the particular features of Italian fisheries and those of the Mediterranean Sea in general. Living resources are exploited by fleets from several countries, which are subject to various jurisdictions. National territorial waters have a 12 mile limit, beyond which the resource management is no longer the responsibility of single states.

Mediterranean fisheries have considerable economic significance in the region’s production context. Their value is reflected by the presence of about 100,000 boats, employing over 430,000 people and with a production of about 1.5 million tonnes.

Italy has always played a determining role in this context, gradually assuming initiatives aimed at encouraging sustainable development of fisheries and the income of fishing operators in the

area; several issues remain unsolved and require shared solutions, particularly in regard to the management of highly migratory and shared stocks.

Multi-level management is carried out in many ways, involving different institutional bodies, according to the type of fisheries; the following, in particular, can be distinguished: fisheries aimed at highly migratory stocks, fisheries of shared stocks beyond the 12 mile zone and coastal fisheries.

Highly migratory stocks

A first case of multi-level management concerns the decision-making process for the management of highly migratory stocks, the definition of which involves ICCAT, the GFCM, the EU and Member States, with different levels of responsibility.

Tuna fishing is regulated by ICCAT, which adopts recommendations and, in particular, sets fishing quotas and technical measures aimed at establishing the minimum size of fish, the areas and periods of prohibition and limitations of the fishing effort. Since 1997, the year in which the European Union joined ICCAT, its recommendations have been immediately binding for all contracting parties, having full force in all EC countries. The management process works progressively, firstly involving ICCAT and then the European Commission, which adopts specific regulations with which the multiannual plan for the recovery of bluefin tuna in the eastern Atlantic and Mediterranean is adopted, in conformity to article 5 of Regulation (EC) 2371/2002.

Finally, the national administration intervenes in the multi-level management system, dividing the national quota among those holding rights, according to the fisheries system (seiners, longliners, traps, sports fishing, other) and vessel size.

The management system adopted for bluefin tuna uses an approach based on property rights, through the assignment of individual quotas, both transferable and non-transferable. The application of an individual quota system for migratory stocks causes certain undesirable results, including:

- increased competition (a “race-to-fish” approach),
- overcapitalisation and increased investments, with the introduction of techniques and equipment that improve efficiency, both in locating and catching the stock (capital stuffing),
- a tendency towards misreporting and over-quota fishing, which count as illegal fisheries.

In 2000, the seiner fleet authorised to fish bluefin tuna consisted of 72 vessels; in 2011, partly as a result of the adoption of a transferable individual quota system, the fleet was reduced to 12 vessels. Most of the vessels have been permanently withdrawn, under the measures specified in the 2006-2013 EFF Operational Programme, while the social costs and economic consequences of the fleet reduction were assumed by the national administration, with the implementation of specific support measures (table 10.1).

Table 10.1 - Bluefin tuna (*Thunnus thynnus*) quotas allocated among ICCAT members from 2000 to 2011.

	Quota (tonnes)	
	2000 (a)	2011 (b)
EU	18,590	7,266
<i>Italy</i>	4,958	1,787
Other countries	10,891	5,634
Total	29,481	12,900

Source: (a) ICCAT, Report for biennial period 2004-05, Part II, 2005, (b) ICCAT Recommendation 10-04.

In conclusion, the objectives of each of the mentioned bodies do not always coincide, but each of them, in the exercise of its own responsibilities, has different perceptions and responds to criteria according to the interests, or interest groups, represented.

Shared stocks

A second case of multi-level management in the Mediterranean region concerns the management of shared stocks, which has different characteristics from the previous case, due to the absence of common management mechanisms in the Mediterranean area.

This absence is a direct consequence of the specific nature of the Mediterranean Sea, due to the division of marine waters according to the principles established by the international Law of the Sea (UNCLOS III); the jurisdiction of coastal states in the Mediterranean Sea is limited, with few exceptions, to just 12 nautical miles from the coast (*territorial waters*).

In the present situation, therefore, resources management is outside the responsibility of single states. All fleets have equal fishing access rights in the absence of regulations capable of ensuring efficient action to protect living resources.

As of 2010, the national fishing fleet active beyond the 12 mile limit, where stocks are shared, is composed of about 2,500 boats (around 18% of the national fleet) and is made up essentially of trawlers, seiners and longliners. It follows that in many areas of the Mediterranean Sea there is strong competition between fleets from various countries, which exploit the same stocks but are not subject to the same regulations on management, monitoring and control.

Among the fleets of non-EU Mediterranean countries in particular, increases, sometimes sustained, are noticeable. This expansion of the fishing capacity, together with sustained increase in per capita consumption (figure 10.4) and the business profits and economic and employment opportunities offered by fisheries (growth in exports, increased turnover by fish processing companies) will most probably determine a further growth in fishing capacity in the future.

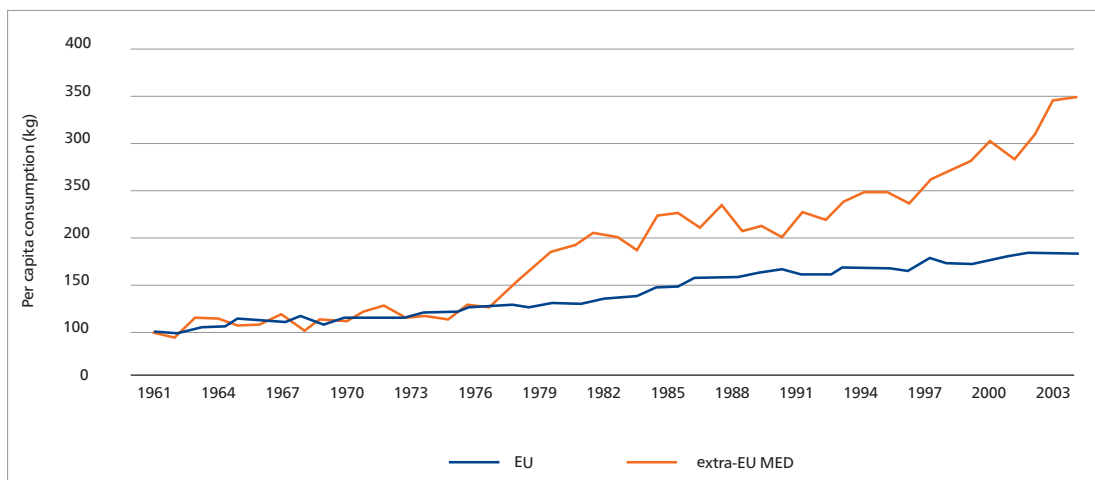


Figure 10.4 - Trends in per capita consumption of fish products in EU and non-EU Mediterranean countries from 1961-2005, base year 1961 (Source: Food-Balance sheets – FAOSTAT, FAO 2011).

Several attempts have been made in this context, both by the European Union and the GFCM, to adopt a shared management system, organised on various levels. With Recommendation 34/2010/2, the GFCM set the objective of strengthening its capacity to control fishery. The recommendation is only binding for EU Member States and not for the other Mediterranean countries, therefore, the effectiveness of the management tools proposed by the GFCM for shared management of Mediterranean fisheries still remains very limited.

Local stocks

This category is by far the most important for the Mediterranean fishing industry. These stocks are prevalent within national coastal waters and are only caught by the fleet of a single state.

The fleet fishing within the 12 mile limit, in addition to authorised mid-water trawling vessels exploiting coastal resources between 3 and 12 miles from shore, is largely composed of smaller boats, many of which fall within the small-scale fisheries segment, with an overall length of less than 12 metres (table 10.2).

Table 10.2 - National fishing fleet with LFT<12 metres, structural characteristics and catch and economic figures, 2010.

	Fleet with LFT<12 m	% of total fleet
Number of vessels	9,178	69.3
GT	19,243	10.5
Employed	14,441	49.8
Catches (tonnes)	35,885	16.1
Income (mln €)	290.18	26.3
Overall profit (mln €)	103	31.7

Source: MiPAAF-Irepa.

The common ownership of the resources has led to a high level of competition among fishermen and between professional and recreational fisheries; furthermore, the control of fisheries is made difficult because of the large number of operators involved (over 12,000) and the limited vessels size.

The EU and the state intervene in the management in accordance with EC regulations. In addition to these two levels of management intervention, a third level is represented by the regional authorities, which, since the amendments to Title V of the Italian Constitution, have assumed increasing responsibilities in fisheries.

In particular, income support measures for fishermen, both in terms of social and economic assistance and the modernisation of fisheries, and measures regarding the sustainable development of fishing areas come under the responsibility of the regions. The objectives pursued at a national level, such as reduction of the fishing effort or the imposition of restrictions on areas and equipment, which have a direct and negative effect on the fishing fleet, do not always coincide with the objectives set at a regional level. In such cases, the multi-level decision-making process creates a lack of efficiency, due to differences in interests and the varied geographical distribution of financial resources among measures aimed at different objectives.

Finally, in the area of local resource management, an active role is played by the fishermen, thanks to the possibilities provided by new instruments, such as the local management plans (PDGL – “piani di gestione locali”) introduced by Regulation (EC) 1198/2006 (EFF). These plans provide for

the assignment of specific responsibilities concerning the exploitation of resources and territorial use to the fishing companies registered in a specific area, adopting a co-management approach, or even one of full self-management. The direct involvement of fishermen in the definition of the rules and levels of exploitation adds a final element to multi-level management, in an attempt to provide management that is more responsible and geared towards sustainability.

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10.3 Three-year planning, a factor in the development and modernisation of fisheries

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There are dates of particular importance in the course of events that marked the fisheries modernisation process, both at a global and at a national level, one of which is 1982.

On 28 October 1982, the *World Charter for Nature* was approved by the 48th Plenary Assembly of the United Nations. As can be seen from *Principle 1*, the Charter affirms the concept that the environment and nature should be considered a whole, the essential ecological processes of which should be respected and not impaired.

In the same year, Law 41/1982, containing the "Plan for the rationalisation and development of marine fisheries", was approved in Italy. Law 41 represented a true watershed between two totally different eras. Before 1982, Italian fisheries, as in most other countries, were characterised by a general situation of free access to living resources, and legislation was limited merely to technical management measures aimed at regulating the activity.

Anticipating the implementation of the World Charter for Nature and pre-dating Rio de Janeiro (Convention on Biological Diversity - 5 June 1992) by 10 years, Law 41 has the distinction of having introduced management issues to a sector in which these were hitherto unknown.

The regulation of catches by means of the fishing effort, the introduction of a fishing licence system organised according to techniques and equipment, the importance given to scientific research and statistical information about the industry, and the involvement of all *stakeholders* in the decision-making process through participation in the committees called for by the law, were all new elements that have contributed to the process of modernising the sector. The most important new development introduced by Law 41, however, is presented in Article 1, which provides for the preparation and implementation of a three-year plan for marine fisheries and aquaculture, describing the objectives and the tools for achieving them. It is, substantially, what would later be described as a fisheries management plan.

The implementation process was not free from difficulties. The preliminary outline for the plan, drafted in 1983, highlighted the existing inconsistency between the necessary information requirements for preparation of the required planning documents and the actual availability of the necessary statistics and scientific information. This was the reason behind the strong emphasis in the preliminary outline on the development of scientific research and an adequate statistical system to support the subsequent three-year plans.

Through gradual improvement of the planning capacity, many other objectives were also achieved. These included the adaptation of public administration to the new needs imposed by the modernisation process in fisheries and strengthening of the role and presence of the associations and organisations representing the various social groups (co-operatives, fishing companies, unions).

Together with the development of EC legislation, an initial phase of consolidation of the plan documents, mainly aimed at improving and developing the productive structure and internal organisation, was subsequently replaced with the objective of making the various initiatives envisaged by national and EC laws part of a single programmatic plan. This approach became necessary to ensure the necessary convergence of public administration activities, particularly in the light of recent changes to the EC legislative framework (structural funds, the "Mediterranean Regulation", the "Control Regulation").

The approval of new EC regulations regarding the Common Fisheries Policy, currently in the discussion phase and aimed at a thorough review of EC criteria for intervention and management of fisheries, will also require a further adaptation phase, for which the three-year plan will provide the most appropriate internal legislative framework.

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10.4 Integrated Coastal Zone Management (ICZM)

Lariccia M.

Integrated Coastal Zone Management (ICZM) involves the creation of an adaptive resource management process for the sustainable development of coastal zones. Its objective is to achieve across-the-board coordination between the various policies that have an impact on coastal regions, through planning in the management of coastal resources and spaces. ICZM is therefore a dynamic, interdisciplinary and interactive process aimed at promoting the sustainable management of coastal zones. It covers the entire cycle of information collection, planning (in the broadest sense), decision-making, management and monitoring of implementation, and is aimed at the long-term balancing of environmental, economic, social, cultural and recreational objectives, within the limits imposed by natural dynamics.

This process therefore requires the involvement and participation of all those responsible for local, national and supranational policies and all the stakeholders in general.

The term “integrated” refers both to the integration of objectives and of the multiple instruments necessary for achieving them. It implies the integration of all related policies in the various sectors involved and of administration at all levels, as well as the integration of the marine and land components of the particular area.

The Protocol on Integrated Coastal Zone Management was signed by Italy as well as by the European Union.

The protection of natural ecosystems is undoubtedly one of the main objectives of the strategy, but ICZM is also aimed at promoting the economic and social wellbeing of coastal zones and at enabling them to support modern and dynamic communities. According to the definitions contained in the new ICZM Protocol of the Barcelona Convention,

- “coastal zone” means “the geomorphologic area either side of the seashore in which the interaction between the marine and land parts occurs in the form of complex ecological and resource systems made up of biotic and abiotic components coexisting and interacting with human communities and relevant socioeconomic activities”;
- “integrated coastal zone management” means “a dynamic process for the sustainable management and use of coastal zones, also taking into account the fragility of coastal ecosystems and landscapes, the diversity of activities and uses, their interactions, the maritime orientation of certain activities and uses and their impact on both the marine and land parts”.

As thus defined, ICZM certainly also directly affects fisheries and aquaculture management policies, as these economic activities are based in the marine environment and therefore affect an important portion of the coastal zone, in which, as the Barcelona Convention ICZM Protocol definition states, abiotic components interact with human communities.

From the ecological and environmental perspective, the importance of the geomorphological area situated on either side of the seashore and the environmental concerns related to it have for some time been considered essential conditions for the planning and regulation of fishery resource harvesting activities in this area. Over the last 30 years, the planning and management of fisheries in Italy has always adopted an approach aimed at integrating the

economic development needs and interests of the operators and the need to protect the marine environment and its resources, as well as a systematic vision encouraging integration between the various administrative levels and across-the-board coordination with other relevant administrations in related matters.

Limiting the analysis of the regulations endorsing this strategy to legislation currently in force, mention should first of all be made of the provisions of Legislative Decree 154/2004 - "Modernisation of fisheries and aquaculture", which, while confirming many of the regulations already contained in the previous legislation⁴, explicitly prioritises the integration of state management policies both with the interests and positions of the operators and companies (Article 16 - "Promotion of cooperation", Article 17 - "Promotion of associations") and with the management policies promoted by the regional administrations (Article 21 - "Understanding between state and regional authorities").

Article 3 of the same Legislative Decree provides for the creation of a further body, the *Central advisory commission for fisheries and aquaculture*, whose specific role is to guarantee coordination with the other administrations, as well as with the research community and companies, as can be seen from its content.

Regarding this important commission (actually established much earlier, with Law 963/65 - "Rules governing marine fisheries", but increased in size under Legislative Decree 154/2004), which is the body that ensures full coordination with all the authorities and relevant management bodies in the related sectors, it should be noted that its task of coordination and guidance in matters of fisheries management policy has also become progressively established, with a focus on greater planning and participation by all the operators in the sector.

Specifically in reference to the protection of the coastal zone and potential conflict with other economic activities particularly evident within this strip of sea, it should also be mentioned that long before the approval of any such regulations by the EC, Italian legislation provided for bans and limits on the use of many fishing methods (particularly the use of dragnets or trawling) within the strip closest to the coast, due to the importance of this portion of the sea, viewed as particularly strategic and rendered particularly vulnerable by the presence of numerous human activities.

These limits, together with other management measures aimed at protecting the most important areas and habitats for the conservation of resources, are also fully in line with the approach suggested by the *FAO Code of Conduct for Responsible Fisheries* (1995), also signed by our State, which launched a participative process for the fisheries of the future.

A strategy inspired by principles of integration under various aspects served as the basis for the fisheries management policies, even though no specific instrument was in existence (such as a National ICZM Strategy or ICZM Plan of Action).

Examples of this kind worth examining and recalling include the specific measures aimed at the "implementation of local development strategies for fishery areas with the will and capacity to devise and implement an integrated sustainable development strategy, demonstrated by the presentation of a development plan" provided for by Axis 4 - "Sustainable development of fishery zones" of the National Operational Programme for the implementation of the European Fisheries Fund (EFF) - approved in December 2007.

The same EFF National Operational Programme also specifically calls for the promotion of integration with other funds and administrations to ensure development that takes into account the existing

⁴ Region, see ch. 9.3

interrelationships with other sectors, though not only for the coastal strip or zone in this case:

“The implementation phase of the programmes will include:

- the establishment of a national committee for the coordination of national strategies, representing the main ministries responsible for rural development policies, cohesion policies and European fishery policies, as well as the regional authorities;
- the creation of forms of coordination between the supervisory committees for the integration of programmes and cross participation, as legitimate members, in respective supervisory committees, this participation will also be extended to a representative of the National EFF Programme;
- the definition of inter-institutional working groups for specific topics (integrated planning, information and communication, evaluation, etc.) in which the integration of policies can lead to more effective interventions”.

Awareness of the need to promote an integrated management policy from a vertical perspective is therefore fully present and emphasised in this latest plan, which has determined the management action of our administration for the three-year period 2007-2009: “in this context, the selection of policy instruments provided for by national planning to support central administration activities should, with this programme, be complementary to the territorial instruments envisaged in the planning strategy managed by the regional authorities. This is in order to bring the initiatives proposed in national and EC legislation under a single draft programme. This approach allows the necessary convergence of public administration actions in the light of recent legislative changes, particularly following the approval of Regulation (EC) 1198/2006 (EFF) and Regulation (EC) 1967/2006 (Mediterranean)”.

The importance of the continuous involvement of the economic operators is also a basic aspect of the planning: “in regard to all the activities ..., this programme stresses the need to promote a more integrated relationship with the representative components recognised by the sector for the creation of programmes, as set forth in Articles 16, 17 and 18 of Legislative Decree 154/2004. The associative development programmes of the fishing companies and employees should therefore be part of this framework, with the development of suitable procedures and methods to consolidate the role and functions of the business and workers’ associations as a vehicle of interface to facilitate the activities of the central administration”.

The difficulty of working in full synergy with other administrations to organise the management of an area considered of enormous importance from an ecological and environmental perspective, in view of the interrelationships and potential conflicts between the various economic and general human activities that interact in the coastal zone, remains the main obstacle to the creation of a true ICZM strategy. The MiPAAF (Ministry of Agriculture, Food and Forestry Policies) nevertheless intends to focus its own management policy on this, as shown by numerous specific management measures and interventions put in place in this direction.

Ultimately, Axis 4 of the EFF also provides for an innovative instrument specifically aimed at consolidating the integration of management policies between fisheries and the other economic sectors based on the sea (the processing of fish products, tourism, etc.) or that interact with fishery management policies: coastal action groups (CAGs).

This tool enables the regional authorities to finance forms of association between “public bodies or groups presenting a balanced and representative expression of public and private partners from the various social and economic areas in the area” (EFF Operational Programme, December 2007): representatives of the fisheries sector (20-40% of the number of members), public bodies

(20-40% of the number of members) and other relevant representatives of important local social, economic and environmental sectors (20-40% of the number of members).

The areas in which the establishment of these partnerships could be considered, under various associative forms, should feature certain characteristics, such as: sufficiently coherent geographical, economic and social characteristics, low population density, declining fishery activities and the presence of a small fishing community.

The established CAGs should also provide for the definition of a local development plan (LDP) based on a strategy of integration of innovative policies, with a bottom-up development approach, that is complementary to the other financial intervention tools, coherent with the needs of fisheries and naturally sustainable.

Further implementation of ICZM

In regard to the future development and therefore implementation of ICZM, a consolidation of all the planning tools would be recommended, particularly the approval of national and local management plans (based on fish species or fishing methods) envisaged and recently introduced by European and state legislation, which are now being defined, as well as the CAGs and LDPs mentioned a little earlier.

The definition of a national, regional and local strategy must nevertheless be continually updated and hence collaboration between the various governance levels becomes essential, together with the full collaboration of the various sectors and relevant administrations, which has already begun but certainly requires consolidation.

Awareness of a commitment made at a European level and of the need to pursue an overall strategy placing ICZM at the centre of management policies in fisheries and aquaculture, although clearly evident in the MiPAAF Directorate-General for Fisheries and Aquaculture, requires consolidation and greater institutionalisation of exchange and decision making, particularly with other administrations.

These moments of interconnection with other administrations and different levels of governance directly or indirectly involved in fisheries management are being standardised at present.

Regarding aquaculture, however, the adoption of a series of integrated management protocols is being encouraged (which emphasise the problem of the impact on the surrounding environment) addressing the entire production process. These were developed with the contribution of *ad hoc* research and pilot projects that were also widely discussed with sectoral operators and then fully integrated in the ICZM strategy.

The information collection systems have also been improved and integrated information systems (based on information types) are being built to make the acquired data and information increasingly accessible both to the research community and particularly to managers. These will enable future policies to be based on more extensive knowledge and an intersectoral scientific database on the state of the resources and environment on which fisheries activities are based.

In addition to data on fishery activities and resources (i.e. biological, technical and economic data), these information systems, which include the development of a GIS for fisheries, contain cartographical data on the presence of infrastructures, of other human and economic activities in the marine and coastal environment or of areas under specific protection schemes (undersea cables and conduits, military installations, platforms for the extraction of raw materials or energy sources, artefacts, undersea barriers for fish repopulation, wrecks and obstacles, the presence

of sensitive habitats, MPAs, SCIs, SPAs, etc.), thereby encouraging an integrated vision. These information systems therefore presuppose the need to integrate fishery activities and their regulation and management within a system comprising the other human activities and the multiple factors derived from these, and will therefore be an important future support tool for decision-makers.

The approach aimed at making the use of natural marine resources more sustainable from an environmental and ecological point of view has been central to the planning of the MiPAAF management policies for several years. It now increasingly benefits from the awareness that the problems regarding the marine environment (particularly pollution and the impact of the numerous human and economic activities) can only be governed by an integrated system involving all the sectors and parties concerned.

On the other hand, while bearing in mind the impact of fisheries on the marine and coastal environment and particularly on resources, the preliminary remarks of the introduction to the Recommendation of the European Parliament and of the Council of 30 May 2002, “concerning the implementation of Integrated Coastal Zone Management in Europe” emphasise (paragraph 7) that “the decline in fishery activity and the employment based on it make many areas dependant on fisheries particularly vulnerable”. This consideration therefore recognises the social importance of traditional professional fishery activities, at least in certain areas, together with the possible role of stewardship in regard to the process of abandonment or degradation of coastal zones, as a counterbalance to other considerations regarding their negative impact.

The aspects of integrated management of coastal zones, mentioned particularly in Article 9 of the *Protocol on Integrated Coastal Zone Management in the Mediterranean* concerning fisheries and aquaculture, and listed below, have nevertheless been pursued in the planning of the Italian management policy promoted by the MiPAAF for several years and will become its essential conditions in the future:

“b) fishing:

- i) to take into account the need to protect fishing areas in development projects;
- ii) to ensure that fishing practices are compatible with the sustainable use of natural marine resources;

c) aquaculture:

- iii) to take into account the need to protect aquaculture and shellfish areas in development projects;
- iv) to regulate aquaculture by controlling the use of inputs and waste treatment.”

All the stakeholders in Italian fisheries are therefore involved at various levels in the creation of an ICZM strategy, in line with the evolution of EU policy in this direction. The formulation of principles and strategies, even if ratified by international agreements or introduced through the approval of *ad hoc* national laws, are merely the precondition, or better the preliminary result, of a complex process, the effective implementation of which requires the virtuous cooperation of all the stakeholders involved in various capacities. Only through the responsible action of the players in the field, in fact, can the management policies regulating the manifold activities present in the marine environment, properly coordinated and integrated, contribute to making human activities taken as a whole truly sustainable and compatible with environmental protection needs. In this process, which requires the integration of the objectives, tools and management measures of the various sectoral policies and which is a priority for the future of the entire fisheries system, mutual recognition of the legitimate interests of the different stakeholders will be necessary. This is certainly

a difficult task but is increasingly unavoidable if the economic and social development of fisheries is to be ensured, in particular when this development goes hand in hand with the conservation of a particular environmental zone, whose importance is certainly not only ecological, but also social, economic and cultural, and especially in Italy, where the peninsular nature of the country provides a particularly extensive coastal strip distributed around the entire national territory.

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10.5 Subsidiarity in the CFP in the Italian system. The example of the Co.Ge.Vo.

Felici E.

The principle of EC and national subsidiarity

Since the Maastricht Treaty (1993), subsidiarity has become one of the basic principles of the European Union: decisions must be made as transparently as possible and as close to the citizens as possible. Government decisions must be assigned to the most appropriate political level, to ensure the achievement of the desired objectives. Basically: it is desirable for decisions

to be taken at the closest possible level to those they affect, but if superior levels of government can ensure better results, then these assume the decision-making authority at a higher level. Although the interpretation of this principle was initially focused on vertical subsidiarity, in regard to the division of tasks between the Union and Member States, the horizontal aspect has subsequently been developed.

Horizontal subsidiarity promotes the development of associative bodies as the main players in society life, as these can bring to light and respond to social needs and demands in a more immediate and effective way. State intervention is envisaged in this perspective only when the autonomy of the social groups is insufficient to achieve the defined objective.

The principle of subsidiarity in the Italian Constitution made its entrance with the amendment of Article V in 2001, with its express recognition in Article 118, where it is defined in both a vertical sense - "administrative functions belong to the municipalities except when they are conferred to provinces, metropolitan cities, regions, or the state in order to guarantee uniform practice" - and a horizontal sense - "state, regions, metropolitan cities, provinces and municipalities support autonomous initiatives promoted by citizens, individually or in associations, in order to carry out activities of general interest".

Subsidiarity cannot be understood today as an anti-statist movement, in a perspective of competition between the centre and the periphery, but rather as a tool for encouraging cooperation, pluralism and the added value that the collaboration of various groups and individuals can provide to government action for the best pursuit of general interests.

If horizontal subsidiarity at a state level can mainly be seen in consultation phases, spaces are increasingly being created for active management at a local level by sectoral associations.

Reform of the common fisheries policy

The common fisheries policy reform process is an emblematic example of the development of the principle of horizontal subsidiarity described above in an EC setting. The publication of the Green Book initiated a process of consultation in which ample space was given to the voice of the stakeholders.

The final draft acknowledges that a centralised "top-down" approach makes adaption of the CFP to the specific circumstances of the various marine basins in the European Union difficult; therefore, in addition to the Member States, responsibility is also to be shared with the parties interested in the management of resources in the various fishing activities and zones, in line with other activities in each marine basin.

Subsidiarity is clearly seen in connection with legislation: the legislation adopted by the EU at a central level should focus on general objectives, specific objectives, minimum common rules and results, as well as on delivery timeframes. Member States will have the flexibility to decide on other measures for fisheries management, under the supervision of the Commission, in full compliance with the provisions of EU law.

Greater self-management is also encouraged, by increasing fishermen's involvement in the policies and acceptance of them, thus contributing to better compliance with the rules. The planned instruments expressly include strengthening of the role of fishermen's organisations, both in terms of planning and implementation, in order to outline further opportunities for sustainable exploitation of the resources.

Furthermore, proposals were made to allow producer organisations to become active players in

planning their members' fishing activities and stabilising the markets, in managing their quotas, fishing effort and fleets, optimising their quota uptake, and in ending discards by swapping and leasing quotas and handling of unwanted catches.

Provisions are also made for the maintenance and extension of the role of advisory councils, both in providing advice on conservation policy and in the extension of their activities to other sectors of marine management which affect fishery activities, and proposals have been made to establish a new advisory council for aquaculture, in order to give due consideration to the particular features of the sector, through stakeholder consultation and advice on defined elements of the policies that may affect this sector.

The outlined system intends to ensure the broadest possible involvement of all interested parties, with its concrete implementation dependent on a combination of compliance by operators and effective enforcement by public authorities.

Positive developments in the reform of the common fisheries policy include the provision of a specific system for coastal and artisanal fleets, with the proposal of two differentiated management regimes: one for industrial fleets and the other for small-scale fleets. This is intended to give importance to the contribution of small-scale fisheries, which constitute the basis for the development of the local economic and social reality, and to also contribute to promoting the cultural identity of coastal regions. A step can be taken in this direction through the use of self-management, particularly for the revival of small-scale coastal fisheries, which comprise the most widespread and specific reality of Mediterranean fisheries.

The Co.Ge.Vo. experience in Italy

The system of self-regulation of the coastal strip by fishermen has been operating in Italy for several years, having been introduced following the 3rd National Maritime Fisheries Plan - 1991-1993⁵ - for small-scale coastal fisheries and bivalve mollusc fisheries. With Ministerial Decree 44/1995 in particular, rules were defined for the establishment, on an experimental basis, of consortia of bivalve molluscs fishing companies, the so-called Co.Ge.Vo. (Consorti Gestione Vongole, or Clam Management Consortia).

Consorti di Gestione Pesca Artigianale (Co.Ge.Pa., or Artisanal Fisheries Management Consortia) provide a particularly innovative and effective management tool. The requirements and functions of small-scale fishery management consortia were defined with the decree of 14 September 1999⁶ governing small-scale fisheries, in order to ensure the direct participation of fishermen in the management of artisanal fisheries.

Consortia are established for the guidance, coordination and management of small-scale fishing enterprises, both individual and associated, operating within the same maritime department.

⁵ The National Plan, now replaced by the Three-Year National Programme, is the intervention planning instrument adopted by the competent Ministry to promote rational exploitation and enhancement of maritime biological resources through a balanced development of fisheries.

⁶ The following circulars were issued in reference to the aforementioned decree: Circ. 23 December 2003 Application of the legislation on small-scale fisheries; Ministerial Decree 14 September 1999 and identification, under Article 2 of the same ministerial decree, of the actions permitted with the contributions referred to in Article 2, paragraph 6 of Law 164/1998; Circ. 3 August 2004 - Application of the legislation on small-scale fisheries; Ministerial Decree 14 September 1999 and identification, under Article 2 of the same ministerial decree, of the actions permitted with the contributions referred to in Article 2, paragraph 6 of Law 164/1998.

The decree assigns the following tasks to the consortia:

- preparation and application of a plan for the management of resources and water bodies, differentiated if necessary, on the basis of specific local circumstances, with the help of research, in compliance with current legislation and in consultation with the other categories of fishermen or other bodies operating on the coastal strip, and with provisions for the control of compliance with the self-regulation rules;
- supervisory activity, with the individuals assigned for this purpose assuming the role of sworn officers under Law 963/1965;
- promotion of initiatives aimed at eliminating conflicts with other fishing activities practised in the same area;
- development of land-based support structures for production activities (small fish markets, product collection and storage centres, means of transport, etc.);
- promotion of initiatives to enhance the quality of the members' catches;
- preparation and creation, in agreement with local authorities and administrations, of pilot projects of particular territorial or general significance (mariculture plants, artificial barriers for the protection of the coastal strip, active repopulation initiatives, etc.) to be financed with EC, national and regional structural funds;
- participation through a representative, as an invited guest, to meetings held in all local venues in which problems are addressed regarding the management of the coastal strip.

To achieve its corporate objective the consortium may:

- obtain in concession and directly manage areas of public waters to carry out capture fisheries, aquaculture and restocking actions;
- regulate and organise fishery activities with the adoption of specific mandatory regulations for its members;
- propose to the Ministry or, in the case of consortia for internal waters, to the competent regional authorities, all measures considered appropriate for guaranteeing the rational management of the resources on which the small-scale fishery activity depends.

The establishment of the consortia, incentivised by the possibility of access to state funding measures, led to the adoption of effective self-regulation codes with measures that include: restocking actions, monitoring of catches, protection of resources, establishment of biological rest areas, rotation of the vessels involved in fisheries, collaboration with research institutes for studies and research on the marine environment, promotion of training and professional qualification of those involved in bivalve molluscs fisheries and enhancement of product quality.

The experience of self-management in the bivalve mollusc sector has without doubt been positive: the decentralisation of decision-making, with the specification of rights of use within the territory, produced effects with regard to the improvement of environmental conditions, improvement of catch quality, increase in production value, containment of costs, and definition of appropriate marketing strategies, with a consequent rational management of resources and of the market.

Despite the positive results and the long time period elapsed, much remains to be done in order to ensure the establishment of consortia for the management of the coastal strip and the establishment of a system that is more integrated with the environment, quality and legality. Delays and obstacles are partly due to the reluctance with which producers have viewed this opportunity, and in part to the need for simpler regulations.

Further incentives are needed for the launch of pilot areas, consolidating collaboration with coastal municipalities and creating strategic alliances with the tourism, environmental and research sectors, to outline a development scenario based on cross-sectoral policies.

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10.6 Fisheries restricted areas

Piccinetti C.

Italian fisheries legislation (Art. 98 of Presidential Decree 1639/1968) set out the possibility of limiting or prohibiting fishing operations in certain marine areas that have been recognised as spawning or nursery areas for economically important marine species or in areas that have been depleted due to over-exploitation. This law establishes the setting up of Fisheries restricted areas specifically for fishing activities and predates by about 15 years the legislation on Marine Protected Areas (1982). There are many provisions that directly or indirectly limit the areas where fishing is permitted, but establishing Fisheries restricted areas remains the most rapid and suitable tool for protecting commercial fish species.

Establishing Fisheries restricted areas has proved to be very flexible: it can limit the use of one or more types of fishing gear, it can set particular technical characteristics for gear or limitations for a period of several months per annum or for the entire year. It is a tool designed for managing the biological resources that are exploited by fishing.

The limitation of fishing in one area is not always positive for the resource, since motor fishing boats that cannot operate in the forbidden area simply move to nearby areas, where catch levels increase; thereby the benefits of protection in the closed area for species that live in both areas could be reduced.

Figure 10.5 shows the locations of the Fisheries restricted areas set up as per art. 98 of Presidential Decree 1639/1968, to which the ones set up autonomously by the two Regions, Sicily and Sardinia, should be added.



Figure 10.5 - Location of the main Fisheries restricted areas – BPAs. Original Italian names are reported (Unimar, 2008).

Fisheries restricted areas and their protection characteristics are individually examined below:

- 1) Miramare Biological Protection Area. This area was set up around the Marine Protected Area (MPA) of Miramare near Trieste, to ensure the fishery management of species spreading out of the MPA, where any form of fishing is prohibited. The Miramare Biological Protection Area affects a coastal area about 1 mile wide and several kilometres long. In this area, fishing with set gillnets and encircling nets, as well as fishing for mantis shrimp and cuttlefish with traps, is allowed. The permission of fishing with these gears is linked to the biological characteristic of catch species and territorial characteristic of the area. Due to Slovenian territorial waters

being so close by, and to there being no international waters, in the sea waters bordering the Friuli Venezia Giulia region the fishing area available is limited. With this lack of fishing areas, a total fishing ban would have concentrated small-scale fishing in a confined area with the same resources being exploited all the time. The zone is also a gathering area for young red mullet (*Mullus barbatus*), sea bream, squid and cuttlefish, which, because of their early development stage and small size, are not captured by approved selective gears.

- 2) Porto Falconera – Caorle Biological Protection Area. This area was set up to protect the resources that are concentrated in an area with rocky organogenic outcrops, locally called “*tegnue*”. In the area, the complete fishing ban is in force because the resources cover a limited distribution area that, without total fishing ban, would suffer a strong and continuous fishing pressure.
- 3) Chioggia Tegnue Biological Protection Area. This area is of particular biological interest and has been the subject of several measures. It is currently divided into two separate areas. The first Biological Protection Area ensures protection to four small areas with rocky organogenic outcrops opposite Caorle, with fish populations that require greater protection from overexploitation. In order to further reduce exploitation of resources as they move from one area to another, the second regularly shaped Biological Protection Area was then set up. It is wider and includes four small areas of hard substrate. Only fishing using gillnets is allowed in this area as well as recreational fishing with hooks, and limited to the connecting channels between the four rocky areas. The use of selective set gillnets and traps ensures that protection is provided for young fish of all species, and contributes to reducing illegal trawling in an area of high fishing pressure.
- 4) Biological Protection Area off Ravenna. This protects a large area opposite the Ravenna coast that starts at the 10 metres isobath and extends more than 10 miles out to sea. This area, where bottom trawling is prohibited but fishing with selective gear is allowed, was set up to provide greater protection for species (red mullet, sea bream, cuttlefish, squid, red gurnard etc) the juveniles of which concentrate around the coastal area.
- 5) Barbare Biological Protection Area. This biological protection area is located almost 30 miles offshore from Ancona, on beds at around 70 metres, and is characteristic in that it contains several oil platforms. Due to their depth they represent special areas containing hard substrate species. Trawling and deep long-line fishing are prohibited in this area, whereas fishing with traps and gillnets on the seabed, that are more selective gears, is allowed. For pelagic resources purse seines and surface long-lines can be used.
- 6) Pomo Biological Protection Area. This biological protection area is located more than 50 miles offshore opposite the Abruzzo coast, in international waters. This Biological Protection Area was set up after Italian and Croatian research activities, which agreed that it was necessary to create a large scale biological protection area to protect young hake. The juveniles of this species gather on these muddy beds to feed on the abundant supply of small crustaceans that constitute their main food. The need for protection was accepted internationally by AdriaMed (Scientific cooperation to support responsible fisheries in the Adriatic Sea), the General Mediterranean Fisheries Commission (GFCM) and the EU. While awaiting more effective international legal tools to protect this area with *ad hoc* regulations, Italy has in the meantime approved this biological protection area.
- 7) Tremiti Biological Protection Area. The location of this biological protection area was decided in order to enhance the protection already provided by Marine Protected Area of the Tremiti islands. The Biological Protection Area starts at the external limit to the North of the MPA and

extends to beyond the 100 metre depth isobath. The creation of the Biological Protection Area allows fishing to be regulated by reducing exploitation. Trawling is allowed in winter time from the 1st November to 31st March while fishing activity using selective gears and purse seines is always permitted.

- 8) Apulia sea Biological Protection Area. The Adriatic Sea opposite the Apulia coasts has both rocky and muddy beds. Fishing pressure with trawl nets is high and fish species gather in the few areas where obstacles on the seabed make it difficult to fish with trawl nets. The Apulia Biological Protection Area is located in an area where bottom trawling is limited due to the strong risks of net snags. In this Biological Protection Area fishing activity using selective gillnets and traps is allowed.
- 9) Biological Protection Area near Amantea. The area was set up with a view to reinforcing the protection of young fish, in particular of mullet, sea bream and dentex which are concentrated on the coast. This protection area allows juveniles to grow and move away from the coastal area. At the same time, it also allows fishing to be carried out using selective gear to catch the larger specimens.
- 10) Sorrento Peninsula Biological Protection Area. A Marine Protected Area was set up opposite the Sorrento Peninsula, in particular to protect the coastal area. The Biological Protection Area extends protection to the area outside the MPA especially to the sea beds towards the Island of Capri. Trawling is allowed in winter time from the 1st November to 31st March while fishing activity using selective gears and purse seines for small pelagics is allowed all year round.
- 11) Santa Croce Bank Biological Protection Area. This is a very small area, surrounding the Santa Croce Bank, which is undoubtedly a special area for flora and fauna, and its biological resources are over-exploited. Hence the Biological Protection Area, which has a diameter of 1,000 metres, and the total ban on both professional and recreational fishing.
- 12) Offshore Biological Protection Area - Southern coasts of Lazio. This area is located offshore several miles from Gaeta and was set up to protect gathering areas for hake juveniles. As juveniles are present in the area in winter and spring, trawling is banned from January to June. Selective passive gears and pelagic fishing are allowed throughout the year.
- 13) Argentario offshore Fisheries restricted areas. This area lies to the west of the island of Giglio and is located in an area with a strong concentration of hake juveniles. Various kinds of extensive Marine Protected Areas have been set up in the area opposite Tuscany and fishermen are very sensitive to further reductions in fishing areas as this would lead them to concentrate their activities in other areas. Hence, the regulations for the area entail the ban of trawling from 1st January until the end of June. The use of selective gears and purse seines are however allowed.

At present, research activities to identify other Fisheries restricted areas are in progress. In order that the creation of a protection area could be useful and increase resources, the cooperation with fishermen is required. The observance of the law is a priority and measures that are understood and shared by all stakeholders are certainly easier to respect.

Management Plans prepared by fishermen would enable this flexible tool to be used within the constraints of spatial management of fishing activities.

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10.7 Recreational and competitive fishing at sea. The role of the FIPSAS

Matteoli U. C.

Sport/recreational fishing in marine waters, both angling and spearfishing, is currently estimated to be practised by over 1 million Italians, a fact confirmed by a very recent census promoted by the competent Ministry (Ministerial Decree of 6/12/2010, the so-called "Census on sport/recreational sea fishing"). Particularly in summer, rocks, beaches, jetties and seawalls are crowded with fishermen, many of which also use boats for some sport and recreation away from the coast. A natural consequence of this significant fishing activity, of the increase in the technical capacities of fishermen and the materials they use has been the establishment and development of contests and competitions, i.e. a competitive activity that over time has transformed a simple pastime into a genuine sport. This also led to growing interest by the industry and businesses that commercialise in equipment for recreational fishing, in which there is an increasing demand for new and innovative materials and greater technological advancements.

In order to adequately regulate and organise this sporting and recreational movement, the Italian Federation of Sport Fishing and Underwater Activities (FIPSAS) has been responsible since 1942 for the management and development of competitive fishing, both at sea and in internal waters, while also representing the justified needs of the hundreds of thousands of non-competitive leisure or recreational fishermen.

The FIPSAS, one of the federations officially recognised by the Italian National Olympic Committee (CONI), currently numbers 230,000 registered members and 3,500 fishing clubs throughout the entire national territory, from Bolzano to Lampedusa. These numbers make it the fourth largest federation of the National Olympic Committee, after football, volleyball and basketball, and one of the first, if not the first, in terms of sport results and the numbers of medals won.

Membership of the Olympic Committee designates the Federation as a body required by statutory provision to supervise competitive sporting activities. FIPSAS has therefore established various sporting sectors for this purpose: Internal Waters, Marine Waters, Underwater Activities and Fin Swimming, which are responsible for the preparation, organisation and staging of many provincial, regional, national and international championships held each year. To gain an idea of the magnitude of the commitments assumed by the FIPSAS also in economic terms, it would be sufficient to note that in regard to international activities alone, the Federation's national teams

participate each year in about 30 world championships, all of which are staged in various regions of the world.

FIPSAS carries out its international activity under the aegis of the International Sea Angling Federation (FIPS-Mer), which in turn forms part of the International Sport Fishing Confederation (CIPS), founded in Rome (where it still has its official headquarters in the FIPSAS offices) on 2 February 1952. FIPS-Mer is the international sporting organisation responsible for the organisation of world championships in all the various sporting disciplines that are practised at sea, and its primary purpose is to develop sport fishing in sea waters throughout the world, in close collaboration with all affiliated national federations.

Sea fishing competitions became official, at a national level, with the establishment of the first Italian championships in the early 1950s. These were years in which a group spirit began to develop among recreational fishermen, which led them to come together to form sport fishing clubs and become part of the Federation and CONI. This was not only for competitive reasons, but also to protect the interests of those who practiced sport fishing at sea, solving problems already felt at that time, such as the docking and storage of boats and the struggle against illegal fishing. These pressing issues are still very relevant, together with others, which are more recent but no less worrying, such as pollution of the marine environment and the growing need for rational management of fisheries and fish resources.

All of these issues are rightfully included among the main objectives and the multiple activities of the Federation, which, with an obvious desire to safeguard the natural asset of “water” and fish, has a “duty” to get involved in environmental protection. Who better, in fact, than fishermen to defend what forms the very basis of their activity. In short, therefore, an intensive commitment was made in the area of environmental protection, which naturally led to the official recognition of the FIPSAS as an Environmental Protection Association by the competent Ministry in October 2004.

Competitive fishing at sea

The FIPSAS is practically synonymous with outdoor sea sports. With no disrespect to other sports, the sea is the largest and most extraordinary competitive arena for sport fishing. A natural consequence of this has been a very intense social, provincial, regional, national and international activity, coordinated and managed by a specially appointed FIPSAS Maritime Waters Sector Committee. The sporting disciplines practised, which were once just two or three, now include all the most varied techniques and variations of sea fishing: shore angling, boat angling, line fishing, surf casting, long casting, big game fishing (which includes coastal trolling, deep sea trolling and drifting), kayak fishing, ledgering, etc. The various disciplines are in turn divided into categories, with championships organised for seniors, women, over 60s, under 16s, under 21s, disabled, etc., obviously at both individual and team level.

Italy is one of the countries with the most titles, championships and medals in international sport fishing. This can be seen, for example, in the extraordinary results obtained by the triumphant Italian teams in the recent (2011) World Championships for all sport fishing disciplines, which were held in Italy. Italian teams won 11 gold medals, 5 silver medals and 4 bronze medals at these third world sea championships, totalling 20 out of a possible 54 medals.

Underwater fishing

With regard to the environment and sustainable fishing, one of the various disciplines practised

at sea that occupies an important position in the Federation is spear fishing or, as it was once known, “underwater” fishing. Contrary to what a common image, often artfully “distorted”, would lead us to believe, this form of fishing has in fact one of the lowest environmental impacts. Unlike those who fish with a rod or a net, spear fishermen are very selective, choosing the type and size of their prey. In particular, the athletic requirements and difficulties involved in spear fishing mean that catching fish is beyond the possibilities of many people, and therefore the numbers caught are necessarily quite limited. Certainly, a certain apparent environmentalism can appear to be supported by the fact that spearguns are used in the sport, which obviously rules out the practice of *catch and release*. Nevertheless, this discipline requires notable physical fitness and, if properly regulated, cannot involve large catch numbers. For this reason, the Federation will continue its efforts to discredit this unrealistic view of spear fishing.

The Federation on the move

Another problem, now in the process of being solved, is represented by occasional conflicts between recreational fishermen and professional fishermen. The continuous reduction of fish stocks, and therefore of catch quantities and sizes, had in fact led to a kind of “battle of the have-nots”, with mutual accusations of improper behaviour, in a dispute from which no one has ever benefitted and which now, fortunately, appears to have been relegated to the past. There is increasing awareness of the fact that, if we desire the genuine good of the sea and the protection of the fish that populate it, everyone needs to play their role and all parties involved need to collaborate in order to achieve a common result. For this reason, in July of 2003 the FIPSAS signed a protocol of understanding with the AGCI, one of the most important professional fishermen’s associations, and the WWF, to create shared projects for the defence of the sea. One example, and a first step, was the contribution made by the installation of some structures in the sea in the area of Orbetello (GR), which, aside from providing a refuge and an excellent site for fish reproduction, should prevent many of the problems caused by illegal trawling, which is practised up to a few metres from the beach.

There is no futile “war”, therefore, but the greatest willingness to co-operate with whoever desires to help the FIPSAS in the defence of the “Water Planet”. Without doubt, the Federation’s primary obligation is to ensure compliance among its own members licensed to fish. This should obviously be done in a proper manner, with adequate rules and legally permitted equipment, while opposing everything which, in practice, prevents the enjoyment of our marvellous sport.

In this perspective, in view of the guidelines indicated by the European Commission and incorporated by the MiPAAF, and also in the light of frequent awareness campaigns aimed at both professional and sport/recreational fishermen operating in the fisheries sector, the Federation has decided to participate in opposing the extensive exploitation of fishery resources caused mainly by indiscriminate “illegal fishing” and the lack of adequate legislation in regard to this matter.

Similarly, in order to stem an uncontrolled development of phenomena that could be harmful for competitive and recreational sea fishing and could lead to serious repercussions at a club level, the Federation recently decided to adopt certain provisions, such as the promotion of the catch and release practice among competitors licensed with the FIPSAS. In almost all championships and competitions under the aegis of the Federation (with the exception of a few cases in which the necessary technology and regulations are still being developed) this practice, which does not permit the killing or ill-treatment of the prey, but requires its immediate release, is already being implemented and regulated. The real problem is still that of creating and increasing proper environmental

awareness among fishermen and of providing sufficient means and personnel, in a collaborative form, for effective supervision of sea fishing zones, both free areas and protected marine areas. This is the purpose and objective that the Federation is seeking to achieve, in collaboration with the appointed ministries and bodies, particularly the Ministry of Agriculture, Food and Forestry Policies and the General Headquarters of the Port Authorities.

10.8 Recreational marine fisheries in the framework of fish resource management

Tudini L.

Background to the topic

Recreational marine fisheries are examined here, with reference to all types of fishing activities carried out by any individual, with or without a boat, for leisure or other purposes not involving the sale of fish or other aquatic organisms. Recreational fishing includes pleasure fishing (for enjoyment or as a hobby) and sport fishing (for competitive purposes related to competitions). After a brief description of the characteristics of the recreational fisherman, the motivations behind the growing interaction between the various interested parties involved in the definition of rules for the sector are analysed. In Italy, until the establishment of free recreational marine fisheries licenses in January 2011, this activity was carried out freely, with no administrative obligations.

Recreational fishermen

There is no precise data on the number of recreational sea fishermen, due to the fact that, unlike freshwater anglers, they do not need a license and are therefore not registered.

On the basis of a survey carried out by Nielsen in 2004, recreational sea fishermen in Italy numbered between 500,000 and 580,000, i.e. just over 1% of the population over 14 years old. The typical fisherman is male, aged between 25 and 54, mainly, but not exclusively, from the Centre-South, and has a good level of education. Marine fishing is normally practiced on a regular basis, with lower figures for those who only fish occasionally. 61% fish from the shore or from a pier, while 44% of fishermen use a boat.

From the data gathered in the survey, the annual catch of fish stock by recreational fishermen was estimated in around 6,000-8,000 tonnes, corresponding to 1.5% of marine fisheries landings.

Legislative aspects

The level of attention given by the European Union to recreational fisheries in marine waters has been changing over time. For many years, the common fisheries policy was exclusively focussed on professional fisheries, with recreational fisheries examined to the extent that it featured in EC data collection programmes.

In 2006, with the Mediterranean regulation, the EC legislator also intervened to regulate leisure fisheries, defined as a series of “fishing activities exploiting living aquatic resources for recreation or sport”, and prohibiting certain fishing techniques that are generally permitted in professional marine fishing operations. In 2009, with the introduction of a new multi-annual “recovery plan”

for the conservation and sustainable exploitation of bluefin tuna in the Western Atlantic and Mediterranean Seas, the European Council also deemed it necessary to focus greater attention on the exploitation of this species by non-professional fishermen, limiting their period of activity and requiring the vessels used to be specifically authorised.

Furthermore, the actions necessary for compliance with the common fisheries policy were extended to include leisure fisheries: Chapter V of Regulation (EC) 1224/2009, which establishes an EC control regime, deals specifically with the control of recreational fisheries.

Recreational marine fisheries in Italy are mainly regulated by provisions contained in the laws governing marine fisheries, which specify the permitted gear and the maximum quantities of fish that may be caught. More specifically, the main national provisions that currently regulate recreational marine fisheries are Law 963/1965, which contains the rules for marine fisheries, its implementing regulation and various ministerial decrees.

Parties involved and relations

The main parties involved in the management of recreational marine fisheries at a national level include institutional players, associations and the productive sector.

The institutional players are represented by:

- international bodies: the GFCM and ICCAT;
- the European Union, through the acts adopted as part of the common fisheries policy and the activity of the Mediterranean RAC;
- the MiPAAF (Italian Ministry of Agriculture, Food and Forestry Policies).

Regarding associations, mention should be made of those representing recreational/sport fisheries (FIPSAS, ARCI Pesca FISA, ENAL Pesca, Big Game Italia, Associazione “Per il mare”, EFSA) and professional fisheries (Lega pesca, AGCI, Federcoopescas, Federpesca). The other parties involved under various capacities in defining the system of rules and relations mainly consist of environmental associations and the productive sector (for example, FIPO, the Italian Federation of Fishing Tackle Producers and Operators).

In the last 2-3 years, many stakeholders have been felt the need for moments of dialogue to reach shared decisions and for associations and producers to have greater visibility.

The specific aspects of this growing interest by the various parties can be seen in the following deeds:

- the institution by the MiPAAF of working group, composed of recreational fishing associations;
- the subsequent adoption of guidelines for the definition of a new reference framework for sport and recreational fisheries;
- the signing in early 2010 of a protocol of intent between the MiPAAF and sport and recreational fisheries associations to monitor sport and recreational fisheries;
- the creation by the MiPAAF of a sport and recreational fisheries working group, formed by representatives of recreational fishing associations and FIPO;
- the implementation of a specially prepared census of recreational marine fishermen, through the obligation to declare “sea fishing activities for sporting or recreational purposes”;
- the establishment of a group to coordinate and monitor the regulatory framework.

The free recreational marine fishing license

Almost all the parties (with the exception of reservations expressed by FIPO) agreed on the need to identify the characteristics of the phenomenon and to introduce some sort of permit/authorisation/license, even if the underlying motivations and expected results varied.

On 31 January 2011, the MiPAAF published the Ministerial Decree of 6 December 2010, aimed at promoting a survey of the extent of recreational marine fisheries. The provision establishes the obligation to declare “marine fisheries activities for sporting or recreational purposes”. This declaration, which can also be made through sport and recreational fisheries or professional fisheries associations, is intended to provide some very simple information (general details, the type of fisheries carried out, and the regions in which various activities are carried out). All fishermen carrying out non-professional fishing activities at sea are obliged to make the declaration, which is free, is valid for three years and, due to its obligatory nature, also serves as a fishing license.

MiPAAF data updated in June 2011 shows that over 600,000 fishermen have registered; these mainly fish from land and are predominately located in Sardinia, Sicily, Apulia and Tuscany. The gear used mainly consists of fishing rods and hand lines.

Conclusions

Many factors has contributed to the launching in recent years of a process that has led to collaboration between public administration and recreational fisheries representatives. The first result of this cooperation was the creation of an instrument capable of measuring the extent of recreational marine fisheries: the declaration of fishing activities for recreational purposes in order to obtain a free permit. Analysis of the data from the census carried out through this procedure should provide information to quantify the phenomenon and outline the characteristics of the sector.

Nevertheless, considering that regulation of sport and recreational fisheries in Italy is based on provisions that date back a long time, the regulation of this activity needs to be modernised and unified, with clear definition of the area of intervention of the regional authorities.

It is also essential to outline potential overlaps between recreational and professional fisheries, by clearly distinguishing the types of fishing gear permitted in order to avoid “grey areas”.

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