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on Rights-based management tools in fisheries

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INTRODUCTION

Since the end of free access to fishery resources, all management systems have introduced some form of access and/or use rights. This is also the case for the Common Fisheries Policy (CFP) which, inter alia, provides for the granting of national licences and quotas, the limitation of “days at sea” for certain fisheries and various measures to limit fleet capacity.

Although the basic mechanisms of the CFP for allocating fishing rights among the Member States have proved to be efficient and durable, in many other respects the CFP has fallen short of its objectives, as is shown by the depleted condition of many fish stocks, particularly demersal stocks, and the poor economic performance of some parts of the fleet.

It is acknowledged that the large variety of management systems currently applied by the Community and by Member States lacks transparency, efficacy and in some cases overall coherence, which contributes to the economic difficulties of the fishing industry. There is a need to examine management options with a view to improving the effectiveness of fisheries management while facilitating the achievement of the basic objectives that are being pursued by the Community and by Member States within the framework of the CFP—such as the conservation of fish stocks, maintenance of the “relative stability” of fishing possibilities of Member States, and a competitive fisheries sector.

The management systems set up at Member State and at Community levels, imposing ‘restricted’ access to fishing, have implicitly resulted in allocating an economic value to the right to fish. This economic value is directly or indirectly reflected in the various market transactions taking place in the fishing industry today. Examples of this are the sale or leasing of licences, fishing days and quotas in some Member States. More indirectly, the economic value of the right to fish is reflected in the difference in market prices of vessels with and without a licence.

In this way, markets in fishing rights de facto exist in most Member States. The economic value of these rights is at times substantial and can have a major effect on the development of the fisheries sector. There appears to be a need for a system that helps to formalise these economic values as individual fishing rights, so facilitating greater transparency, legal certainty, security, and ultimately greater economic efficiency for fishermen, which will also mean minimising the costs to the rest of society.

A wide range of instruments exist, of which the most frequently mentioned is the system of individual transferable quotas (ITQs)¹. Each of these instruments involves a precise definition of the fishing rights allocated either to individuals or to limited groups.

Some Member States have given considerable scope already to this type of instrument, in distributing the fishing rights, based on the catch quotas allocated to them under the CFP. Outside the EU, various third countries have made systems of individual transferable rights/quotas the backbone of their fisheries management arrangements.

¹ An individual quota (IQ) is an allocated privilege of landing a specified portion of the total annual allowable fish catch (TAC) in the form of quota shares or of limited catches. An individual transferable quota (ITQ) allows the holder to sell or to lease it.

These elements were raised in the Roadmap² of the Commission's proposal for the reform of the CFP, where the Commission committed itself to produce a report on the scope for provisions within Community and/or national fisheries management systems for a system of tradable fishing rights, whether individual or collective. This is the purpose of this working paper.

Individual transferable quotas are not the only management system based on fishing rights, and even within ITQs several variants exist. Chapter II of this report accordingly contains a review of the most common rights-based fisheries management systems. A discussion of the comparative merits of fisheries management systems can be conducted only by comparing their ability to achieve specific objectives. Chapter III is devoted to examining the relationship between management tools and the objectives of the CFP. The final part examines the consequences of approaches to expanding rights-based management systems within the CFP.

It is worthwhile noting that all fisheries management systems in force are rights-based.

I WHO DO STOCKS BELONG TO? THE PROBLEM OF USE RIGHTS AND THEIR NATURE

A precondition for effective management of sustainable fisheries is the resolution of the problem of fisheries as shared property and the "tragedy of the commons" that results from it. The elimination of free access entails the creation of a form of 'ownership' rights. However, the term 'ownership' is misleading: it is not the ownership that is at issue but the use of the resource.

By obtaining the right to fish, under whatever system, a fisherman does not in any way become the owner of a stock but only the holder of the right to use that stock (e.g. to take a proportion of future TACs for a generally limited period). Fishery resources cannot be the subject of ownership rights before they are taken. Use rights are, as a rule, first held exclusively by the public authority which then determines the conditions of access to the stock, as well as the level and nature of its use by fishermen.

Various forms of use rights can be held by the parties involved in a fishery: a person, an enterprise, a fishers' organisation, a fishing community, a cooperative or a vessel.

² Communication from the Commission on the reform of the Common Fisheries Policy (« Roadmap »), COM(2002) 181 final.

A fisher's membership of a group that holds a collective right – whether a percentage of the national quotas allocated to a professional organisation or the monopoly use of fishing areas coming under a Cofradia in Spain (fisher's association) or another cooperative structure in Italy – is an individual right. The acquisition or transfer of such right necessarily has an economic or financial aspect, even where the market does not play an exclusive role. This collective right may be subject to constraints as to its transferability. In many cases, rights may be traded or leased between group members only, which may lead to difficulties with discrimination and the need for transparency.

The establishment of use rights in a fishery is regarded as a means of deregulation: it entails the devolving of responsibility for management from the public authorities to the holders of the fishing rights.

The scope of the rights devolved by government is measured on the basis of four criteria:

- *exclusivity* requires appropriate monitoring and enforcement systems;
- *security* of titles requires an effective legal system;
- *longer validity* helps to bolster the holder's trust in the capacity of the system to respond to his/her long-term concerns
- *transferability* requires ownership registries plus the rules and means to make them function.

Some of these criteria are found in fisheries where no genuine use rights exist. The strongest fisheries property systems will be those in which the four characteristics are the least constrained and offer the rights holders the greatest flexibility. Conversely, by limiting the possibility of transferring quotas and the period of validity of these rights, the State will retain broad control of the process, including in cases where a system of ITQs is applied.

One of the problems directly linked to rights-based management systems is that after they are created it is difficult to switch systems owing to the compensation that the industry will seek in order to offset the loss of value of its fishing rights. This problem will be worsened if these rights are defined expressly or regarded implicitly as property rights.

The obligation to provide financial compensation may be limited if the system introducing the individual rights offers satisfactory flexibility and adaptability to change. It would be advisable therefore, when establishing such a system, to anticipate the circumstances in which adjustments to the system will be necessary and the conditions that are to prevail when those changes are made.

A time limit on rights is an important component of flexibility and a clear indication that the granting of rights cannot be guaranteed beyond a certain period. However, even a system that is officially limited in time may at a given moment be regarded as quasi-permanent where the rights have been prolonged several times, giving the holders of those rights a legitimate expectation that the system will be extended.

II FORMS OF RIGHTS-BASED FISHERIES MANAGEMENT SYSTEMS

1. MANAGEMENT SYSTEMS AND THEIR CHARACTERISTICS

The regulation governing the management of catch capacities now requires that any Community fisherman intending to practise fishing professionally must have a Community fishing licence, which is the basic requirement for obtaining access to fish stocks but does not in any way provide open access to all fishing activities.

Fishing rights as such may be defined on the basis of the answers to the following two questions:

- Who can go fishing?
- Within what limits can they fish?

This leads to the grouping of use rights within two categories, namely access rights and withdrawal (harvest) rights:

1.1. Access rights

Access rights are allocated in the form of access authorisations, in most cases also called licences or territorial use rights. They provide access to a fishery³ and allow operation there subject to constraints as to "how", "when" and "where". They consist in particular of:

1.1.1. *Limited entry licences*

Licences stipulate the conditions for access to specific fisheries. In most national fisheries management systems, the right to fish is linked to the acquisition of a fishing licence. Licences, which are easily monitored, are used mainly as a management tool for restricting the number of fishermen or vessels and/or controlling certain characteristics of fishing methods from the engine power to the gears used.

No management system in the EU is limited to just the matter of access, as this cannot prevent a *race to fish* together with a *race to invest*, which increases overall fishing capacity beyond a level compatible with the effectiveness and viability of the sector.

Indeed, the effectiveness of a system of restrictions via the granting of licences depends on its combination with other management tools.

1.1.2. *Territorial use rights in fishing (TURF)*

This expression is usually understood to mean rights customarily recognised as belonging to a community to manage a fishery in a specific geographical area. Territorial use rights confer on the individual members of the community an exclusive right of access to a fishing zone. These rights apply generally in small-scale inshore fisheries where management is based on

³ The term 'fishery' is used to describe the collective enterprise of catching fish, as a rule combined with a reference to the species, fishing gear or region involved.

the limited participation of the local population in a confined geographical area. In addition to being exclusive, these rights may, where necessary, have the same characteristics as other rights-based management systems, i.e. be exclusive, secure, durable and transferable. In addition, they can be held by individuals or communities.

Territorial use rights are especially appropriate for relatively sedentary species such as molluscs and crustaceans. They are frequently applied in conjunction with special technical measures in order to tailor fishing gear to the characteristic features of the fishing zone.

Systems of this kind are found mainly in the Mediterranean, in bivalve fisheries or in the fisheries managed by the Spanish Cofradías, where the coast is divided into areas linked to each association.

The simplest (short-term) way of tackling problems of overfishing in the case of TURFs is to reduce fishing time and/or to limit the landings by vessel.

1.2. 1.2. Withdrawal (harvest) rights

In most cases, *withdrawal rights* refer to the intensity of use of a stock as reflected in the level of effort authorised for a type of fishing (*input rights*) or the level of catches (*output* or *catch rights*).

1.2.1. Input rights

Input rights mean more specifically the right to use or exploit a stock: the right to a use of "capacity" (e.g. in terms of tonnage or engine power), the right to a fishing time or a time at sea (monitoring of "days at sea"), or the right to use certain types of gear, etc.

Management through inputs offers the following main potential advantages:

- more straightforward to apply input controls in a multispecies fishery than trying to enforce catch rights of many individual species at the same time;
- compared with catch rights, simpler to monitor: for example, a vessel that has been allocated a quota of days at sea and which is not in port is assumed to be fishing and consequently using up its allocation of days;
- less incentive for unlawful landings and/or discards at sea, thus contributing to improving the data needed for managing fisheries;
- the possibility for fishermen provided the period is long enough to plan their fishing trips better in order to maximise the value of their catches.

This system of management nevertheless creates its own difficulties if it is applied on a wide scale. These difficulties include:

- problems in assessing and comparing the fishing effort of various vessels and gears, to ensure a fair share-out of the available resources. The absence of a clear relationship between inputs and catches means that further technical measures are needed to supplement the monitoring of inputs;

- the efforts by fishermen to increase productivity/fishing mortality in the medium and long term by investing in new technologies or enhancing their efficiency during fishing trips in order to offset the restrictions. Technical progress means that it is necessary to adjust authorised effort levels regularly to take account of the increased efficiency of vessels, fishing techniques and gears;
- the risk that fishermen will target species where stocks are vulnerable but market demand is high and prices are attractive. Technical measures can mitigate the effects of this behaviour.

1.2.2. Catch rights

Catch rights specify the authorised level of catches of a given species and are generally expressed as a percentage⁴ of a TAC (Total Allowable Catches). TACs are allocated among countries, fisheries, communities or individual fishermen; each share of a TAC represents a collective or individual withdrawal right. The way in which TACs are determined is usually quite independent of the type of rights granted by the management system (although in some rights-based management systems the holders of quotas are formally involved in the quota-fixing process).

Catch rights are generally expressed as individual or group quotas, whether transferable or not. The most frequently mentioned advantages of individual rights compared with other systems of management are as follows:

- discouragement of the “race to fish”;
- security of access to stocks;
- increased security in relation to harvesting as a result of the greater flexibility offered to select the rate and time of fishing;
- longer fishing seasons, since the early exhaustion of the overall quota is less likely. This should result in more effective coordination between market supply and demand, enabling better seasonal supply and quality, and thus raising the value of landings;
- safer long-term planning for fixed assets (vessels, fishing gears, etc.) and better predictability of market development;

The system of individual transferable quotas (ITQs) is the best known and most widely discussed among those based on the granting of catch rights, probably because in its least constraining form it is the system that best incorporates the concept of private ownership. In fact, several types of systems are currently applied under this name. This diversity is the result of the relative importance given to the various criteria which characterise these systems, to the

⁴ By setting the individual quota as a percentage of the TAC instead of as an absolute quantity, the burden of the risk associated with the uncertain levels of TACs is borne by the industry and not by the public authority.

holders of the rights, to the role of the public authorities, to the limitations imposed by law, and to the goals pursued.

The critics of management systems based on catch rights put forward *four* main arguments:

- the substantial financial burden on owners of rights of the second and subsequent generations, because, unlike those of the first generation who get their rights for free, subsequent generations have to buy their quotas at market prices;
- individual quota systems may encourage fishermen to practise ‘highgrading’⁵ and inaccurately declare their catches;
- need for an effective and permanent control of landings;
- concentration of fishing rights in fewer hands.

2. DECENTRALISED MANAGEMENT AND CO-MANAGEMENT⁶

There are no cases where the central authority determines and administers all aspects of the management of fisheries without negotiating directly with the professional groups or regional associations and delegating and/or exercising a form of devolution of certain powers.

Some management systems are based around the fishers' organisations. Typically in the EU this concerns giving these organisations wide-ranging authority to exploit stocks in a defined area.

There is a rising tendency to devolve powers to professional organisations ranging from allowing these organisations to manage individual fishing rights and to recognising a quasi-monopoly over a defined area or a specific fishery.

Relying on professional organisations to manage and monitor fisheries makes it possible to benefit from internal discipline, so that the group exerts peer pressure on individuals. Experience reinforces the view that the management of fisheries is greatly improved with intermediate organisations between fishermen and the public authorities. Intermediaries of this kind become more valuable as the number of fishermen rises.

Two drawbacks have to be avoided:

- the establishment of a monopoly over the use of public resources for the benefit of a closed group could, inter alia, be incompatible with competition rules, in view of the transparency of the process, the importance of the resource and the duration of the monopoly;

⁵ ‘Highgrading’ means substituting higher value fish for lower value ones (because of differences in size or quality). Highgrading increases discards and consequently increases fishing mortality.

⁶ ‘Co-management’ refers to systems based on the distribution of responsibilities between national government and the fishing sector, involving the delegation of responsibilities to private institutions operating at national, regional or local level. This shared management may concern either the decision-making process, or the implementing and enforcement process, or both.

- a lack of transparency where the mechanisms for granting access and resolving conflicts of interest are not made public.

Co-management is a form of management where the distribution of powers between the user/beneficiary group and government is defined legally. This type of management allocates to the beneficiary group, in precise fields, a direct responsibility for management and a right to draw up and apply binding regulations. Although the objectives of co-managed fisheries may be the same as those of any other management system, the way in which they are achieved can differ greatly. The most frequently quoted advantages of co-management are:

- a more open, transparent and less hierarchical system;
- a better information and knowledge base in which scientific findings can be supplemented more easily by practical experience;
- more rational regulation through the participation of the group concerned;
- greater legitimacy of the political process and of regulatory decisions;
- greater commitment and closer compliance on the part of the group;
- lower operating costs as a result of the internalisation of certain costs such as those connected with the collection and management of certain data.

Co-management does not necessarily imply less regulation but rather regulation that is determined partly at local level and consequently better adapted to operating conditions in local fisheries.

Within the CFP, the Regional Advisory Councils (RACs) could play an important role in making the management systems of the fisheries they represent more transparent and starting a debate on how to achieve greater coherence in the management of the fisheries concerned.

3. FISHING RIGHTS AND TRANSFERABILITY

The advantages which fishermen may enjoy as a result of the transferability of their rights to fish, whether temporary or permanent, arise mainly from the flexibility offered by this alternative. In particular:

- rights may be reallocated to the most efficient operators, thus contributing to improving the profitability of the fleet and, where necessary, reducing overcapacity;
- through the purchase or leasing of quotas, discards due to unintended by-catches in multispecies fisheries or to the covering up of quota overruns can be reduced or avoided;
- holders of rights can more easily give up fishing, because of the capital sums they obtain for selling their fishing rights.

Transferability has however a major drawback, namely the risk of the excessive concentration of fishing rights in the hands of an increasingly small number of owners. This situation could

lead to the creation of oligopolies/monopolies, substantial changes in employment conditions in fisheries and widening regional disparities. The majority of countries that have adopted a system based on transferable fishing rights have imposed legal limits on transferability.

III LINKS BETWEEN MANAGEMENT TOOLS AND THE OBJECTIVES OF THE CFP

4. STATE OF PLAY

The Community has the responsibility for limiting the total fleet size and for setting TACs and quotas. National authorities distribute and manage their licences and quotas at national and regional level. Many inshore fisheries, particularly in the Mediterranean, are regulated on the basis of territorial fishing rights (TURFs). It would not be appropriate to interfere in these local forms of management.

In the case of fisheries managed directly at Community level, with the setting of TACs and/or maximum effort levels, several Member States have adopted internal arrangements based on a detailed allocation of fishing rights, with an option to transfer at least part of the rights available (the Netherlands, United Kingdom and Spain as regards effort ceilings). Under these arrangements a firm that wishes to take part in the fishing rights market in a Member State may do so only if it satisfies the requirements laid down by the Member State in question to be allowed to fish under its flag.

While the arrangements in question have been expanded over time, mainly by giving a regulatory role to the professional organisations (e.g. Dutch co-management), it seems impossible that these processes could be turned back. This is comparable with the general trend in many fisheries across the world, with an increasing role played by individual transferable fishing rights in their management. The question of the development within the CFP context of the role of this type of tool also arises. The present CFP rules stipulate that Member States are fully in control of their choices, provided they respect the obligations established at EC level, in particular the national catch quota limits. This does not mean that nothing can be done at Community level. At least the sharing of experiences between Member States and with third countries which have know-how about matters of this type should at least be made easier.

Some argue that the Commission should go further, envisaging European fishing rights markets. They maintain that the restrictions on trade between Member States created by the TAC distribution keys are an exception to the common rule of free competition between Community producers. They go on to say that the market in fishery products has now been largely integrated between Member States in contrast with the barriers erected to trade in fishing rights, and that these barriers are an obstacle to the acquisition of rights by those who could exploit them most efficiently from an economic point of view.

Those not in favour of creating European-wide fishing rights markets point to examples where a link between the right to produce and the geographical location of producers exists (cf. milk quotas). They stress the dangers of concentrating fishing rights in the hands of a small number of major firms to the detriment of inshore fisheries, and underline the risks of enterprises and jobs linked to fishing being relocated elsewhere. They also maintain that the non-member countries that have adopted transferable rights-based systems (including Iceland and New

Zealand) are not faced internally with the risks of relocation that exists between EU Member States, where wide disparities remain in terms of production costs and social and tax systems.

5. THE OBJECTIVE OF CONSERVATION

Stock conservation, as the guarantor of the sustainability of ecosystems and of continued economic activity, is at the present time the prime and immediate objective.

5.1. Bringing individual and group interests closer together

A system of individual transferable rights, licences, IQs, TURFs, or effort rights, can contribute, at least in the short term, to controlling the level of capacity and to reducing fishing pressure. In most cases, complementary limits on access rights and input rights may be needed to facilitate the biological sustainability in the long term.

Some people consider that the permanent granting of fishing rights in the form of individual quotas is the best way to bring the interests of individuals closer to those of the group. More than any other system it increases the sense of responsibility of beneficiaries because of their direct interest in the satisfactory condition of stocks and their environment. The allocation of individual catch rights, whether transferable or not, adds value to allowable catches by removing the incentive to take as much as possible, as early as possible, before a fishery is closed ('competitive fishing').

It is advantageous for the quota holder since the better the condition of the stock, the higher the value of the individual right. This of course applies to a lesser extent in the case of non-transferable rights and rights of very limited duration.

There are several examples where systems of individual catch rights have been applied, although not always related to the conservation objective. Hence, there is not always clear evidence that the introduction of ITQs has had a positive impact on fish stocks. The first experiments with ITQs in the Netherlands, which started in 1976, did not prevent an increase in overcapacity or catch levels beyond the national quota. The Netherlands Government was obliged in these circumstances to extend the ITQ arrangements gradually by adopting in succession:

- a system of freely transferable vessel licences in 1985 to limit the total engine power of the fleet;
- a regulation in 1987 limiting 'days at sea' under which each vessel was given a non-transferable allocation of fishing days dependent on individual quotas held, type of fishery, licence and vessel engine power;
- a co-management system in 1993 under which the fishing industry was brought directly into the decision-making processes.

This experiment in the Netherlands seems to suggest that there is no single panacea based on fishing rights for the management of fisheries but that a variety of instruments and combinations of instruments are needed.

The management of fishing effort through a 'days at sea' scheme may also help respond to the problem of the imbalance between the number of fishermen and the quantity of fish available.

By allocating each vessel a number of fishing days below its current rate of fishing, the result should be a reduction, ideally proportional, in nominal fishing effort. Fishermen are inclined, however, to increase their actual fishing effort (and hence fishing mortality) in order to compensate for these restrictions, by investing in new technologies or stepping up their activity during fishing trips. Considering the level of productivity already reached by the majority of them, it is difficult in the short term to achieve a significant improvement in performance. In the longer term however, technological progress should be countered by a matching reduction in the number of days allocated.

5.2. The impact of by-catches (discards and 'highgrading') on conservation

The majority of European fisheries are multispecies fisheries. This can easily lead to a mismatch between the quotas granted for the various species and actual catches. The result is that by-catches of species whose quota has been reached are thrown back into the sea. These species are discarded either because of an incompatibility with the quota percentages for the species or on account of significant price differences related to the size, the quality or the gender of a given species⁷.

'Highgrading' increases total fish mortality. It can moreover distort the catch data if the quantities discarded are not shown in the data recorded on landing. Highgrading raises costs in that additional economic inputs are needed for a given landed quantity.

Although the problem of highgrading is frequently associated with output-based systems, all other things being equal, incentives to highgrade exist regardless of the system of individual catch quotas. This incentive is less clear in input-based fishery systems.

The possibility of quota transfers can at least partially alleviate the problem raised by multispecies fisheries by making it possible for fishermen to more easily attain the catch composition they want. In a system of ITQs, the purchase of additional quotas can in principle facilitate a match between quotas and catches across a basket of species. Under this system, the problem of a mismatch between quota and catches should only arise where the overall quota for a species has been reached or is close to being reached.

Other solutions may be considered, such as:

- making the system more flexible by authorising the transfer of quotas between species on the basis of specific conversion rates (on the understanding that only marginal adjustments would be authorised for the most vulnerable species);
- fixing quotas for the dominant species only and regarding the additional catches as by-catch. This solution is especially appropriate where a dominant species can be determined and the other species are not at risk;
- allowing a limited carry-over of quotas from one year to the next. This mechanism is applied in some countries and Community law authorises a certain flexibility in the management of certain quotas by allowing some overruns during the year

⁷ The Commission intends to launch a policy initiative on discards in 2007.

which have to be offset by an identical reduction the following year. Many consider the mechanism to be much too cumbersome, however;

- creating a “quotas fund” which the authorities can use to balance the market and support the development and adoption of more selective fishing gears and practices.

Iceland prohibits the majority of discards (with the exception of fish taken live using a line). This has not prevented some unauthorised discards. To reduce the scale of these discards it is permitted to record half of the catches of undersized fish as lawful; this provision applies only if the share of that category of fish is below a certain percentage of the total catch.

Under the system of ITQs there are two opposing forces at play insofar as discards are concerned. On the one hand, ITQs create an incentive to discard lower-quality fish because of the price of the ITQs. On the other, the system of ITQs promotes a tendency towards more selective fishing methods. It is therefore not possible to state, a priori, therefore that the switch of a fishery to a system of ITQs will always result in an increase in the volume of discards.

6. THE OBJECTIVE OF ECONOMIC EFFICIENCY

While most management systems are designed and intended in first place to limit the exploitation of stocks by adapting the means of taking catches to the productivity of the available resources, the rationale of a system of transferable rights is primarily economic.

6.1. Transferability of rights: an effective economic management instrument

The recognition of specific catch rights under a system of individual quotas is, in principle, a potent barrier to the acquisition or, to a lesser extent, to the maintaining of capacity in excess of what is needed to catch the quotas obtained.

Individual catch rights, if transferable, are a mechanism for reducing fishing effort and overcapitalisation. They incite a reduction in the number of commercial fishermen since some of them, over time, will decide or will be obliged to sell their rights. The transferability of rights makes it possible therefore to reduce the number of fishing vessels and achieve a better balance between fishing capacity and stocks. This is a strong advantage in particular if overcapacity is large and difficult or excessively costly to resolve by a system of scrapping capacity.

The sustainability of fishing enterprises typically improves following the exit from the fleet of vessels that are marginal from an economic point of view through the transfer of quotas from the less profitable vessels to the more profitable ones.

A number of fisheries in which a system of individual catch rights, in the form of ITQs, has been introduced have experienced significant reductions in fleet capacity; this has been the case in the United States *surf clam* and *ocean quahog* fisheries, the Australian bluefin tuna fishery and in Iceland's purse seine fishing.

Experience has shown however that individual transferable rights are not sufficient to eliminate overcapacity. Substantial overcapacity remains for example in the Icelandic

demersal fleet and the Netherlands flatfish fleet, whose vessels remained in port for a large part of the year. This is despite these countries having had a system of ITQs for over 20 years.

Several factors may explain this ‘wait and see’ approach to the reduction of excess fishing capacity:

- typically the sunk costs related to leaving the sector are high, due to depressed prices of fishing vessels and costs of scrapping, and would act as a barrier to exit;
- there is often some unfounded optimism on the part of fishermen who keep hoping that a reversal of the situation creates a capacity shortfall;
- several of these vessels also target fisheries not subject to a system of transferable rights;
- there are examples of fishermen who even after selling their rights prefer to keep their vessels as insurance in case the system of ITQs is abolished;
- the optimum allocation of production factors sought with the system of transferable catch rights tends to operate more efficiently on new investments than on old investments, the majority of which are depreciated;
- the existence of aid for construction, modernisation and scrapping, which tends to make investors less risk averse. Not imposing a time limit on scrapping aid may also lead to delays in decisions to leave the sector;
- where the efficiency of a vessel can be increased and its production costs lowered by making marginal investments, the vessel owner is naturally inclined to make that investment.

In fisheries with a large number of species or where control is proving difficult, transferable licences can, possibly combined with specific input measures, be an appropriate mechanism for bringing fishing rights into the system.

6.2. Concentration of rights and restrictions on transferability

Systems of individual rights are accused of being responsible for large-scale concentrations in terms of quota ownership, geographical distribution of fishing activity and fleet composition. This tendency is attributable to transferable quotas to the extent that such groupings make greater economic efficiency possible. However, other factors should also be taken into account in such a context which means that the effects of quota transferability could just be incremental. In some fisheries where transferable quotas are applied, concentrations of rights reflect to a significant degree the reduction in overall capacity following the sale of rights by fishermen leaving the sector.

In general there is little evidence of major changes in the structure of the industry as a result of the application of a system of transferable quotas. However, this may be due to the restrictions imposed on exchanges of rights with the precise aim of preventing unwanted changes in the structure of fisheries.

Major fleet concentrations have taken place in countries where there is no “official” market in ITQs. This has generally come about through the purchase of other categories of fishing rights (fishing licences, use permits, etc.) in a largely uncontrolled and non-transparent manner. It should be noted that the erection of barriers to concentrations is easier in a clear market situation where transactions are transparent.

The existence of fishing rights markets also raises the fear of many owners that there will be massive buy-ups of rights by investors from outside fishing. There do not seem to be obvious examples of such purchases, and indeed the contrary may be true. This situation is undoubtedly attributable to the relatively low profitability of the fishing industry compared with other economic sectors.

The purchase of fishing rights by recreational fishing businesses is also a possibility to consider as they may be able to raise significant funds.

Restrictions on the trade in rights are generally imposed to curb concentrations. This is the case for instance under the system of ITQs implemented in Alaska for halibut and sablefish, where the main aim has been to avoid radical industrial and geographical restructuring. Similar considerations have persuaded the Norwegian Government to resist the pressure to transform the system of individual quotas into one of individual transferable quotas. Indeed, restrictions on transferability exist in practically all fisheries operating under ITQ arrangements.

The question that arises here is whether such measures are appropriate and effective.

Restrictions of this type could run counter to the economic efficiency of the system and generate an economic cost which has to be compared with the benefits. Since such measures typically seek to preserve the geographical balance of the activities and maintain the cultural and social fabric, the benefits to society cannot be directly set against the potential loss to the industry operators.

7. SOCIAL ASPECTS

Introducing normal market rules to an economic sector previously not fully subject to these rules inevitably entails social costs, but also offers social opportunities.

7.1. Jobs at sea and fishing dependent communities

Transferable rights-based management runs the risk of reducing total employment to the extent that vessels exit the fleet, potentially at a faster rate than if left under current management systems. Nevertheless, over the long term fisheries with a rights-based management system will see more stable, more permanent and less seasonal employment, though admittedly on a smaller scale.

It should be underlined that, even if rights-based management systems are not *per se* designed to protect the interests of small-scale inshore fishing and may even speed up their decline, these systems should not be viewed as being the only factors bringing about job cuts in the fishing sector. Technical progress and biological limits on resources are in many cases, and inevitably, major contributors to reducing the number of jobs.

The different factors having a potential negative impact on employment and social conditions at sea and in fishing dependent communities should be carefully considered. Major stakeholders, in particular the social partners, should be involved in this process.

When interferences exist with a small-scale inshore fishing sector that exploits the same resource and has a major impact on the local economy, there is a strong argument in favour of a prudent approach to individual tradable fishing right systems. This sector is often of major importance in terms of numbers of vessels and fishermen, although its contribution in terms of catches is more limited. The introduction of transferable rights can be combined e.g. with rules on the size of vessels authorised to use those quotas in order to safeguard the viability of small-scale vessels.

In some cases, if a system of individual rights is introduced in areas heavily dependent on fishing, it is the transferability of those rights which represents a threat to the local economy. In that case, transfers of rights can, if necessary, be limited to communities within clearly defined geographical areas. Systems of rights restricted to the members of a community (“ring-fenced community rights”) could be an appropriate response to the difficulties of the most vulnerable regions while limiting distortions of competition.

However, any mechanisms established to limit the negative effects that might result from an unregulated market, mainly in terms of concentrations and relocations, should be compatible with Community single market and competition rules. Experience has shown that vigilance is needed in this respect, with various mechanisms having been shown to be contradictory to Community rules. Any such mechanisms would have to be systematically subject to examination by the Commission.

Finally, there may be a number of obstacles within Member States to the establishment of relatively uniform rights-based systems. Because of custom and tradition some countries question the granting of access rights to a public resource to private interests, even temporarily. In addition, these rights must be integrated into the wide variety of legal frameworks in Member States.

7.2. Access to ownership

The change from open access to limited access increases substantially entry costs for newcomers (in particular young people) who are willing to purchase a fishing enterprise. The high price of licences and quotas currently represents a major obstacle to new. In fisheries where fishing rights are applied, each vessel has an additional value independent of its material value: the value of its right to fish (fishing rights).

This is likely to act as a substantial barrier to fishermen access to ownership or to social progression, in particular in the case of crew members or owners of small vessels.

Experience in the Netherlands, the United Kingdom and Iceland indicates especially high prices for ITQs, in some cases to the point where the cost of leasing quota may be greater (temporarily) than the revenues generated from using it.

Some young fishermen nevertheless become owners through the transfer of rights by inheritance. Even in the majority of the countries where fishing rights are transferable assets, heirs are normally in a privileged position in taking over these rights.

8. HORIZONTAL ASPECTS

8.1. Safety at sea

The improvements in safety at sea are regularly cited as a major strength of both transferable and non-transferable individual quotas. A fisherman who is assured that later in the year he will be able to take fish that he has spared today by refraining from fishing when conditions are dangerous is less inclined to take risks.

Accidents at sea have many causes however and while accident rates have improved in recent years, many risk factors have changed too and the introduction of individual quotas and restrictions on days at sea is only one possible explanation among others. It is difficult therefore to make a quantified assessment of any potential impact of the various management systems on safety at sea.

8.2. Fraud and monitoring

If quotas prevent the optimum catch levels of vessels from being reached, i.e. the catch levels at which profits are maximised, it is clear that profits will be squeezed and the owners of vessels will feel that they have an economic incentive to exceed their quota. The smaller is the quota in relation to the catch capacity of the vessel, the greater the incentive to exceed the quota. The introduction of a system of quotas in a period of overfishing will therefore require closer monitoring.

The difficulty does not originate in the transferability of the quotas, which on the contrary can help resolve part of the problem: it enables the holder of quotas to buy additional rights rather than attempt to land excess fish fraudulently.

Economic factors and excess capacity of the fishing fleet represent the major incentives to breaking the rules, as a survey conducted in the Danish fisheries illustrated⁸. These two parameters are closely linked and determine the scale of profit that can be expected from fraudulent operations.

On the basis of the principle that “the greater the direct involvement of fishermen in the design, implementation and monitoring of the rules, the more these will be considered lawful and appropriate”, several factors need to be taken into consideration when adopting rules:

- the distributive effects of the rules must be fair as there are potential conflicts of interest between large-scale fishermen and the others;
- the rules have to be perceived as justified and measured. This underlines among other things the need for scientific advice which the industry trusts;

⁸ Important Factors Influencing Rule Compliance in Fisheries-Lessons from Danish Fisheries. Jesper Raakjaer Nielsen and Christoph Mathiesen, Institute for Fisheries Management and Coastal Community Development (IFM). The North Sea Centre, 9850 Hirtshals, Denmark, 2003.

- the rules must be consistent with traditional fishing practices and procedures.

8.3. Relative stability

A major objection to the introduction at Community level of transferable rights-based management systems is that it could undermine the principle of relative stability, by which a Community TAC is allocated among Member States on the basis of a fixed distribution key. A generalised system of transferable rights at Community level could give operators the possibility of buying rights that are currently managed and distributed by the national authorities in accordance with their own management rules.

Evidently, a distinction needs to be made between trade in fishing rights within the national allocations and any transfers from one Member State to another.

In some Member States the national quota systems seem to be evolving into ITQ-type management systems, with the trade in rights being managed by producer organisations. The trend towards the introduction of fishing rights systems is even more evident if account is taken of licences and fishing permits.

On the other hand, trading among economic actors from different Member States is also expanding, but in a less visible way. This often involves circumventing the principle of relative stability or the requirement that Member States typically impose on any vessel flying its flag that it should have a real economic link with that State in order to have access to its national resources.

Overall there is a problem of clarity, each Member State having its own rules and procedures, and a more open and clearer approach would be to the advantage of the sector as a whole. On the other hand, in the majority of Member States the industry remains strongly attached to the principle of relative stability, and this despite the fact that it is an exception to the principle of the free movement of capital and workers. Relative stability is often perceived to be an assurance against the wholesale purchase of fishing rights by investors who are unconnected with a fishery or the Member State.

8.4. Experience in the field of public intervention and State aid

Over the years the Commission has observed that the existence of transferable fishing rights in certain Member States has led to public intervention in the market and illegal state aids.

In 2003 for example, the Commission found that the system for the buying and leasing of quota to local fishermen on preferential terms introduced by the authorities of the Shetland and Orkney Islands in the United Kingdom was incompatible with the common market⁹.

In another case concerning a Dutch aid scheme providing for the buying out of reserved licences, the Commission found that the system of 'floating tradable' licences, not attached to a vessel, prevented the national authorities from complying with fleet capacity targets and could seriously endanger the implementation of the CFP.

⁹ OJ L 211, 21.8.2003, pp. 49 and 63.

It appears that other Member States are encountering similar problems and are envisaging state aid measures or other types of public intervention to rectify unwanted effects of transferable rights. Vigilance will continue to be needed to ensure that such public interventions are compliant with the CFP and compatible with the common market.

On this point, it should be noted that although a system of transferable rights may be advantageous from a certain point of view, such a system can over time also be the cause of serious difficulties and put compliance with Community law at risk.

IV POSSIBLE FOLLOW-UP ACTION UNDER THE CFP

9. DEEPENING AND OPENING UP THE DEBATE

There is no single panacea for the problems facing fisheries: instead, there are a multiplicity of management instruments and mechanisms all with their advantages and drawbacks. Fairly comparable situations have been dealt with in sometimes very different ways depending on the country, the region or the fisheries. These approaches, even inside a country, represent a considerable body of practical experience which should be evaluated and deserves to be shared. An exercise of this kind would bring greater consistency between management systems within the EU Member States and would stimulate Member States to choose management systems that will be able to meet the conditions of the CFP.

If one considers the experiments now under way across the world, it appears that the trend in fisheries management systems is towards greater emphasis on right based management systems because they offer the efficiency and flexibility associated with the market economy. No country that has adopted the system of individual quotas as the basis for the management of its fisheries has abandoned the experiment although the majority have developed the system further by adding special measures so as to prevent unwanted effects and abuses.

The time appears to be right to examine this approach in greater depth, especially as the reform of the CFP and the recently adopted subsidy regime (European Fisheries Fund), places fishing companies in a position where more and more they will have to ensure their own economic and financial viability.

In conclusion, a debate on rights-based management tools in fisheries should focus in particular on the following key questions:

9.1. Access rights and use rights

What are the legal rules and constraints under national legislation regarding the exercise of these rights?

9.2. Problems involving the CFP objectives with management based on fishing rights:

9.2.1. In relation to the objective of conservation: What are the best ways to improve the control of catches? What provisions/measures are likely to discourage discards?

9.2.2. In relation to the objective of economic efficiency: How can the optimum economic allocation of quotas be facilitated? How can fishing-capacity be controlled? What

are the short-term and long-term solutions to the problem of fleet overcapacity? What safeguard measures must be introduced in order to avoid an excessive concentration of fishing rights without undermining the financial viability of the sector?

9.2.3. ***In relation to the social objective:*** *Which measures could be implemented to improve wages, preserve sustainable employment and maintain the cultural, social and professional fabric?*

10. REPORT TO THE COUNCIL

The Commission intends to support this debate, as much as necessary, with specific studies or expertise. Commission discussions with industry and Member States have revealed particularly sensitive topics in the setting up of RBM systems:

- The issue of "relative stability";
- Transferability of fishing rights, which may involve an excessive, and often irreversible, concentration of these rights;
- Initial allocation and durability of fishing rights;
- Possible adverse conditions for the small-scale fisheries sector when it coexists with industrial fishing enterprises;
- "High grading" and discard problems;
- The need for efficient enforcement controls.

The Commission will report to the Council and the European Parliament on the outcome of this debate and, if and when appropriate, make proposals or recommendations for Community and national follow-up.