



**THE POLLUTER PAYS PRINCIPLE AND FISHERIES:
THE ROLE OF TAXES AND CHARGES**

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1 Introduction

The principle that the costs of environmental damage or resource depletion should be borne by polluters or users – the Polluter Pays Principle (PPP) - was first elaborated as an economic principle in the 1970s and eventually became embedded in the EC Treaty in 1987. The principle can be implemented by various means, requiring producers or resource users to meet the cost of implementing environmental standards or technical regulations, or by introducing liability regimes making producers liable for causing environmental damage. However, taxes, charges and levies are also an important means of promoting the polluter pays principle. By making polluters or resource users pay compensation for ongoing activities that deplete resources or otherwise impact on the environment, these instruments can provide incentives for introducing more environmentally sensitive practices and generate revenue to recover costs associated with administering environmental or resource management policies.

Although there are some examples of economic and other instruments being applied to fisheries at national and EU level, the CFP adopts a predominantly legislative approach involving a combination of catch limits and technical measures detailing where and how fishing is permitted. Fishermen are generally required to pay the costs of implementing these measures as part of their normal operating costs, although some funding is normally available to the sector to help meet stringent new standards or to support measures that go beyond regulatory requirements. Despite the potential scope for taxes or levies on the fisheries sector to recover management costs or to charge for damage to or use of natural resources, such measures are not commonplace in the EU.

This approach in EU fisheries contrasts with an overall trend towards using economic instruments to manage activities in other sectors, in support of the polluter pays principle. The water sector provides a useful example of how charges can be applied to the use of a natural resource to recover the costs of supplying water as well as the

opportunity costs of depleting the resource. In the right circumstances, environmental taxes and charges may also encourage longer-term innovation towards more resource efficient or less environmentally damaging production methods. Furthermore, where actors are numerous and dispersed, taxes and charges may be more cost effective than enforcement of legislation. However, taxes and charges are unlikely to deliver all environmental objectives and would therefore be most effective when complemented by other instruments, including traditional regulation and appropriate governance structures.

This CFP briefing paper is the last in a series of five papers prepared by IEEP as part of a joint IEEP/English Nature project¹. It presents a brief history of the polluter pays principle in EC environmental policy. It then outlines the extent to which existing EU, national and non-EU fisheries policies reflect the principle, with a focus on taxes and charges. It closes with an overview of issues and options for developing taxes and charges as a means of implementing the PPP in relation to fisheries. It is thus intended to provide a constructive contribution to the debate on the future of the CFP beyond the year 2002, as well as broader discussions on integrating environmental considerations within the CFP, in line with requirements in the EC Treaty.

The other briefing papers in this series cover:

- Fisheries and Environmental Integration;
- Fish stock management: a role for strategic planning?
- Good governance and the CFP; and
- Mediterranean Issues.

2 The Polluter Pays Principle in EC Environmental Policy

The Polluter Pays Principle (PPP) – those who damage the environment should bear the cost of such damage – is a long standing feature of EC environmental policy. Although the principle was only introduced into the EC Treaty in 1987, references to it in EC documents date as far back as 1973 when it was among a lengthy list of principles set down in the first EC Action Programme on the Environment². That programme stated that the ‘cost of preventing and eliminating nuisances must in principle be borne by the polluter’. A Council Recommendation (75/436), and an annexed Communication, followed in 1975 and essentially provided the starting point for the inclusion of the principle in the EC Treaty a decade later. The Principle had also been developed in the context of State aids since the late 1970s.

The interpretation of the PPP has in several ways evolved since the early 1970s (see OECD 1992). At the outset, the Principle essentially related to paying for the cost of pollution abatement, in line with legal requirements. However, its meaning was subsequently extended so that polluters could be made liable for the cost of administrative measures taken by authorities in response to pollution. Thus, under the waste framework Directive 75/442, Member States have to have in place a system of

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² OJ C112, 20.12.73

charges to cover the costs of waste disposal. The new water framework Directive 2001/60 also provides a legal basis for charging for the environmental and financial costs of water use.

The meaning given to the word 'polluters' has also developed. In the early 1970s, polluting emissions from industry were a particular concern and this was reflected in the debate of the time. However, it soon became accepted that the PPP applied to any activity that contributed to deterioration of the environment, rather than being strictly limited to polluting activities. The 1975 Communication confirms this broader definition, defining a 'polluter' as 'someone who directly or indirectly *damages* the environment' (emphasis added), in other words applying the concept to more than simply polluting activities. Discussion has therefore considered issues such as natural resource use, notably though not exclusively related to the use and management of water resources. In applying PPP to natural resource management a complementary principle has developed which is widely used by the OECD and is often found enshrined in national law: the User Pays Principle (UPP). The United Nations defines the UPP as a variation of the polluter-pays principle that calls upon the user of a natural resource to bear the cost of running down natural capital.

Since the 1970s, there has also been growing recourse to exceptions to the PPP, for example, permitting aid for research and development costs. It is also considered legitimate to support compliance with stringent new environmental standards, particularly in sectors characterised by small businesses which are often unable to pay for compliance. Support is also increasingly available where payments would lead to faster environmental improvements as long as such aid is provided for a limited duration only (see Baldock *et al* 1991).

Despite its long history and extended meaning, application of the PPP has been far from comprehensive. There have been numerous disputes on the practical interpretation of the principle. One recurring theme has been the relative role of regulation versus economic instruments in the implementation of the PPP; another has been whether 'polluters' have to pay for the full costs of control and/or restoration measures. Where charges and other economic instruments have been used, these have also been very variable, sometimes designed to raise revenue to cover costs, or to cover restoration work. In some cases, charges are closely associated with individual polluters, thereby providing clear incentives to alter behaviour; in others, charges are placed on whole sectors without necessarily seeking to influence the behaviour of individuals.

Liability for damage to the environment is another way to ensure that the polluter pays. Currently there are moves to introduce an EU-wide liability regime for environmental damage. The Commission's 2000 Environmental Liability White Paper (COM(2000)66) suggests that individuals could be made financially liable for certain environmental damage, notably serious damage to protected areas designated under the EC birds or habitats Directives. Proposals to introduce such provisions into EU law are currently being developed by the Commission. Many Member States already have liability regimes in place that should apply equally to damage caused by the fisheries sector as to other economic sectors.

The PPP, therefore, is set to remain a feature of EC environmental policy in the future. The proposed sixth Environmental Action Programme³ - *Environmental 2010: Our Future, Our Choice* – provides a clear signal to this effect by proposing the following commitment for the coming decade:

‘To promote the polluter pays principle, through the use of market based instruments, including the use of emissions trading, environmental taxes, charges and subsidies, to internalise the negative as well as the positive impacts on the environment.’ (proposed Article 3(3))

The principle should also make an important contribution in the process of integrating environmental considerations into sectoral decision making, in line with Article 6 of the EC Treaty, by supporting the integration of ‘external’ environmental costs within economic decision making. Taxes and charges are a key way of making this happen.

3 The Fisheries Sector and the PPP

It is only very recently that the fisheries sector has been drawn into the debate on the PPP, at least at the European Community level. A 2001 Communication on fisheries and the environment (CEC 2001b) refers to ‘[the principle] that those responsible for the damage should pay’. According to the document, acceptance of this and other principles will be one of three elements of a strategy to integrate environmental considerations within the CFP, in follow-up to requirements under the EC Treaty (Article 6). However, on the basis that little work has been carried out to ascertain the implications of the PPP and other principles to fisheries management, the Communication simply calls for work to ‘progress’ in this field.

In discussing the potential application of the PPP to fisheries, it is likely to be argued that fisheries should be treated differently than other sectors for a number of reasons. The points below touch on some of these arguments.

- An obvious difficulty is the fact that impacts of fishing practices may be slow to appear, particularly in the absence of regular monitoring. Compounding this problem is the uncertainty surrounding environmental impacts and the lack of information.
- Unlike damage arising from industrial operations, the source of damage in fisheries cannot easily be traced back to an individual, although it may be possible to identify groups of vessels or fleets that have been fishing in a defined area.
- In many instances, a discussion about the PPP in fisheries is premature due to the existence of numerous subsidies which are perverse in the sense that they encourage rather than penalise the polluter/user in his damaging activities. In this regard, the PPP can be useful in bringing about the removal of such subsidies, after which it remains to be seen whether instruments such as taxes and charges are still appropriate.
- In fisheries, as is often the case in agriculture, governments tend to treat the sector differently on socio-economic grounds, when it comes to imposing taxes. This

³ COM(2001)31

approach stems from acknowledgement of the economic and social role of rural and coastal communities and the characteristics of the sector, including its ability to pay. A significant proportion of the catching sector, particularly in the southern Member States, is made up of small scale or artisanal vessels. Small scale operators may face special difficulties in adapting to changing environmental requirements. There may also be limited ability to pass on the costs of compliance or taxation to consumers.

These and other issues will continue to be taken into consideration in discussions over the future of the CFP. But it is already evident that the fisheries sector will increasingly be subjected to environmental controls, as are other sectors. This change in approach is already visible in the recent Commission Green Paper on the Future of the Common Fisheries Policy (CEC 2001a) that refers explicitly to the need for the CFP to embrace the environmental principles in the EC Treaty. More broadly, it suggests that the Community should begin to explore the implications of management tools which are not yet widely used in Europe, including access levies for the right to fish, at least for some parts of the Community fleet. Furthermore, the Green Paper suggests that beneficiaries of regional management could in future be expected to contribute to the costs of such management.

4 Applying the PPP to fisheries: taxes and charges

Taxes and charges can be used in various ways in applying the PPP to fisheries. Fisheries are associated with a number of 'externalities'. Externalities are those costs (or benefits) arising from an economic activity that fall on a third party, and are not taken into account by those undertaking the activity. Fishing can contribute to degrading the environment by changing the characteristics of seabed habitats or removing non-target species and by discharging pollution. It can also fish a species to below biologically sustainable levels. The damage to or loss of 'natural capital' is borne by society in general but is external to the economic decision making of the fishery, ie not taken into account by operators.

In the face of such externalities, governments can introduce regulation to minimise environmental impacts and establish liability for damage caused or establish rights to develop an interest in the long term viability of the resource. Taxes or charges can also be levied on activities that produce external costs, while subsidies can be used to 'reward' those that bring external benefits. All of these instruments can be applied to fisheries, and potentially play a role in ensuring that those damaging the environment are held responsible or actively discouraged.

Taxes and charges are aimed at 'internalising' external costs by making the producer of externalities pay for the cost borne by third parties (often society). If set at the right level taxes can work to dissuade producers from making economic decisions that are associated with externalities. They also provide a source of revenue that can be used to compensate third parties (eg clean up costs) or to support management systems to address the 'externalities' at source. For example, revenues can be used to fund waste disposal systems or fisheries management functions such as research and monitoring.

In considering ways of applying the PPP to fisheries, a clear distinction can be made between using taxes and charges to recover the financial costs of managing a fishery and the costs of *using* the resource, as follows.

- ‘Cost recovery’ refers to charging user-fees to cover the administrative, monitoring, and enforcement costs of a particular fisheries management regime.
- Charging for erosion of natural capital can be broken down into ‘rent collection’, which refers to obtaining the fair market value for the public as a whole from the private use of the national resources, and damage to the environment, eg loss of biodiversity, water pollution, etc.

The following briefly examines some of the existing practices relating to these two areas, drawing on examples from national, EU and non-national fishing nations. It is followed by an outline of issues and options for applying the PPP further in the fisheries sector.

Recovering the costs of fisheries management

Where taxes and charges are used in the fisheries sector, they commonly take the form of charges or levies to recover the costs of management, monitoring, marketing or research. The argument is that charges or taxes are justifiable on the grounds that governments provide services, notably research, administration and enforcement of management systems, that enable fishermen to enjoy ongoing benefits from fisheries. The fisheries sector should consequently contribute to the costs of these services. Cost recovery can be based on number of factors, including the amount of fish legally landed, access to fishing grounds, or the species or stock targeted.

There is little published information concerning cost recovery charges in the EU Member States but it is thought that most do *not* have any management cost recovery systems (Hatcher *et al* 1998). At the EU level, charges are placed on vessel operators benefiting from quota allocations under some third country fisheries agreements. The charges are in addition to payments from the EC to the third country so that the costs are effectively shared between the EC and the operators. However, this appears to be the only use of taxes and charges in the fisheries sector currently regulated at EU level. Despite national fuel taxes and the existence of the EU mineral oils Directives (92/81 and 92/82) establishing minimum duties on fuel, fisheries and agricultural sectors typically benefit from substantial tax concessions to support investment or increased profitability.

In apparent contrast to EU Member States, several non-EU countries have introduced cost recovery systems, including Australia (see box), New Zealand, South Africa and Iceland. In Iceland, fees are levied on quota owners to cover the costs of monitoring and enforcing individual transferable quota systems. An upper limit on the charge is set at four per cent of the catch limit (OECD 1997) and in 1997, approximately ISK 120 million was recovered as a result (OECD 2000). In addition to charging for quota, charges are also levied on licenses (Sanderson 1997).

Cost recovery in Australian Fisheries

All activities of the Australian Fisheries Management Authority (AFMA) are governed by a set of legislative objectives, including an objective to recover the costs of the Authority. In accordance with Government policy, the total cost of AFMA's operations is split between industry and Government (currently approximately 40 per cent and 60 per cent respectively), with the commercial fishing industry paying for costs directly attributed to fishing activity on a full cost recovery basis. The Government pays for activities that may benefit the broader community as well as the industry.

Current Government policy on cost recovery originated in the mid-1980s on the premise that beneficiaries of Government services should meet the cost of those services in accordance with the concept of user pays. A 1992 inquiry into cost recovery arrangements for Commonwealth-managed fisheries culminated, in 1994, in the publication of the report *A Review of Cost Recovery for Commonwealth Fisheries*. This outlines a policy and set of principles for implementing cost recovery in Commonwealth fisheries. In accordance with this policy, industry pays 100 per cent of recoverable management costs. Recoverable management costs include the running costs of Management Advisory Committees (MACs), licensing, AFMA's day-to-day fisheries management activities, the cost of developing and maintaining Management Plans, and logbooks and surveillance. Costs of enforcement are not recoverable.

Costs are recovered on a fishery by fishery basis, with MACs playing an integral part in the preparation of annual budgets for each fishery. Increased industry participation and involvement in budgeting and management decision making has been an essential precondition to achieving this level of cost recovery.

Source AFMA (2000)

Paying for resource use or environmental damage

A key issue associated with the fisheries sector is the ongoing use of natural resources, and associated environmental impacts on the environment. Charging for ongoing use of the resource is generally referred to as 'rent' collection. *Rent* is an economic term referring to the payment for use of a productive natural resource. Its most obvious application is in land rent, but it also applies to other natural resources, including minerals and fisheries. Most fisheries are rent-free in the sense that fishermen do not have to make an explicit payment for use of the fishery resource. In theory, at least, rent can be charged in relation to profits made and can therefore be calculated on a regular basis as products are sold. Ideally, revenue from rents are diverted into the public purse so that society benefits from the private use of the public resource.

Taxes or charges aimed at *rent recovery* could be levied on different factors, such as on the basis of access to fisheries (ie on licences), the quantity of fish caught or landed, or inputs into fishing activities such as vessel size, gear use, fishing effort or fuel use. The following example shows the difficulties inherent in making such a levy practicable, however.

Experiences in charging for resource use

With the exception of Canada, many countries appear reluctant to attempt to levy a charge for resource use, rather than seeking only to recover administrative costs. While a resource rent charge was explicitly collected in New Zealand prior to the new Fisheries Act, it was found to be difficult to arrive at an appropriate level of the charge. The industry also argued that they should not pay for the costs of management as well as the benefits of management. The most convincing argument proposed by industry, however, for not paying a community charge was that the value of the rents had already been capitalised into the licence or quota value. Once these had traded hands then the rent had already been paid, with the first generation of fishermen who sold their licences or quota obtaining a windfall gain.

The desire to obtain a community return, however, is still obvious in a number of countries. New Zealand auctions the right to exploit new fisheries. In Australia, the collection of a community return remains a part of Government policy. Canada also recognises that fishermen should pay a charge for the privilege of access to a community-owned resource. The willingness of foreign fishing fleets to pay for access to the resource is indicative of the potential resource rents that exist in fisheries.

Research suggests that if a community charge or resource rent charge is to be introduced, the industry must be made well aware of such a charge before any management change takes place. As any rent that exists in a fishery is already capitalised into the licence or quota value, a community return cannot be extracted unless new management measures are introduced into the fishery to increase the level of rent.

Source Hatcher *et al* 1998

In addressing *environmental damage*, as opposed to resource use, taxes or charges could theoretically be designed to reflect the level of environmental impact from different fishing methods, gear or fishing in specific regions, thereby 'internalising' some of the wider environmental 'externalities' of fishing. The desired effect of such taxes or charges may be to encourage the take up of other fishing methods or the diversification to other non-fisheries related activities.

However, there are various reasons why, in fisheries, taxes and charges for this purpose may not always be the most effective instruments for applying the PPP. Where the costs of damage to the environment are very high, for example in areas rich in biodiversity, a tax may not provide a significant disincentive unless set at very high (and politically unacceptable) levels. The threat of liability or litigation for breaking the law may be more appropriate in such cases.

The variety of situations and changing circumstances evident in individual fisheries will often mean that a set of environmental rules and regulations will be easier to administer than a set of taxes and charges. Monitoring no-go areas, by-catch limits and gear restrictions will often require no more monitoring and surveillance than would applying taxes and charges to these activities. It may simply be preferable to institute cost recovery to support improved management, monitoring and enforcement. Also, the revenue from cost recovery will often be more predictable for both fishers and managers, potentially making the system more politically viable.

Nevertheless, there is scope for introducing taxes on certain production methods, such as the use of more potentially damaging gear (eg beamtrawls or dredgers). Alternatively, taxes or charges could be based on a combination of issues, including cost recovery, resource use (ie rent collection) and environmental impacts.

5 Developing taxes and charges: some implementation issues

When considering the introduction of taxes and charges to the fisheries sector, a number of potential barriers need to be taken into account. Constraints imposed by EU policy on taxes and charges for environmental purposes are also important factors for consideration, as outlined below.

Potential barriers to developing taxes and charges

- *Economic barriers* - in the short term, all charges or taxes are likely to result in increased numbers of vessels making financial losses, but with different charges having differing effects on different types of vessels or activities. If a flat fee rate was charged on access to a fishery, for example, this is likely to have a comparatively greater impact on small-scale fishermen. At the macro-level, economic instruments also have broader implications for the competitiveness of the EU or national fisheries sectors in that charges or taxes will increase costs. In practice, however, these and other barriers can be overcome by introducing instruments as part of a broader policy package which is designed to balance costs and benefits to different parts of the sector.
- *Agreeing the appropriate levy* – in theory, the question of how high to set the tax or charge should reflect the main reason behind it, ie to cover ‘externalities’ (ie resource rent or environmental damage) or to cover costs of management. However, the usefulness of charging ‘rent’ for resource use has been challenged because of difficulties in measurement (Pearce 1991). Determining a ‘price’ for environmental damage would be equally if not more difficult. In practice, the level of taxes and charges are in all cases likely to reflect issues such as ability to pay, elasticity of demand and equity arguments, as well as mitigation costs.
- *Avoiding illegal activities* - there are obvious difficulties associated with the use of some economic instruments which could induce perverse responses. For example, if charges were placed on declared landings of fish, this would provide additional incentives to mis-report landings. A more successful alternative may therefore be to charge for quotas, licences or permitted fishing ‘effort’. Taxation on fuel use can also pose problems, although the scale of this would be much reduced with the adoption of EU-wide taxation levels. For long distance fishing fleets, significant differences in fuel price would encourage vessels to fill up in countries with cheap fuel before entering the waters of those where fuel is more expensive.

EU policy considerations

Apart from the different barriers identified above, the likelihood of adopting EU level taxation measures is severely constrained by the requirement that all legislation of a fiscal nature must be adopted by a unanimous vote in the Council of Ministers

(Article 93 EC Treaty). Furthermore, Article 175 of the Treaty makes it clear that this remains the case for ecological taxation. As a result, any single Member State retains a veto over legislation on fuel or vehicle taxes. As experience with the EU mineral oils Directives demonstrate, where there is the potential for adoption of EU fiscal measures, any progress is likely to be very slow. Prospects may be slightly better for measures seeking to extend existing provisions to additional sectors, in line with calls for greater harmonisation of taxation, particularly on fuel.

While EU level activity is effectively constrained by the Treaty, Member States are able to develop national taxation measures as long as these do not conflict with the internal market. A 1997 Commission Communication⁴ provides guidance to Member States on how to introduce environmental taxes and charges that are in line with Community policy on the single market. Generally speaking, Member State systems of taxation or charging, including the use of revenue, should not distort the Common Market by discriminating in favour of a particular domestic sector. In particular, the rules guard against the use of exemptions for domestic industries or compensation for domestic producers with targeted revenues.

Environmental exceptions exist and these generally refer to the principle of 'proportionality', which involves balancing the gain for the environment with the potential impact on the single market. In order for a tax or charge to be deemed 'environmental' a Member State needs to demonstrate either that the taxable base of the levy has a clear negative effect on the environment or that the use of the levy results in a discernible positive environmental effect. Another interesting aspect of the rules' application to the environmental domain regards the differentiation of taxes and charges between 'like' products. Normally the levy must not have the effect of protecting domestic products, but this is acceptable as long as the differentiation is based on objective criteria, such as the nature of the raw materials or processes used.

6 Conclusions

The polluter pays principle and the associated requirement to internalise external costs are now enshrined at the level of principle in EU policy. It can be seen from the above that a number of initiatives exist in order to put them into practice in different countries, however progress in the EU fisheries sector has been limited.

As the Commission Communication on environmental integration into the CFP (CEC 2001b) highlights, it may be time to reassess options, and to bring the fisheries sector in line with the PPP and other environmental principles set out in the EC Treaty. Indeed, the Green Paper on the Future of the CFP already contemplates exploring the use of access levies in the future. This IEEP/EN paper aims to contribute to that work by sketching out some of the basic issues and options relating to the use of taxes and charges in support of the PPP. It is hoped that it can be followed by more concerted research and policy work over the next two or three years to contribute to the ongoing CFP reform debate.

In developing policy in this area, however, it will be important to ensure that the right combination of instruments is used to manage the sector. Taxes and charges should be

⁴ *Environmental Taxes and Charges in the Single Market* (COM(97))

seen as a compliment to traditional regulatory approaches, rather than an alternative. Similarly, taxes and charges should be used alongside positive incentives to actively encourage and support environmental innovation in the sector. Finally, but significantly, taxes and charges should be designed to support rather than undermine traditional low impact fishing methods that are often also significant in terms of their contribution to local economies and communities.

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