

EXECUTIVE SUMMARY

The fisheries sector in OECD countries receives around USD 6.4 billion a year in transfers from governments. Around 38% of the transfers is provided for the management, research and enforcement of fisheries while 35% is directed to the provision of fisheries infrastructure. The remaining transfers are in the form of direct payments to the sector or transfers that reduce costs of fishing, including vessel construction and modernisation payments, decommissioning schemes, income support, fuel tax exemptions and interest rate concessions, to name but a few. Because of difficulties in identifying the full range of transfers, this figure is most probably an underestimate of the total support provided to the sector.

The negotiations underway in the WTO to clarify disciplines on fisheries subsidies, and the call in the WSSD Plan of Implementation to eliminate subsidies that contribute to illegal, unreported and unregulated fishing and to overcapacity, underscore the significance that the international community places on the issue of government support to the industry. Many OECD governments have undertaken or are contemplating reforms in their fishing sectors to shift towards more sustainable and responsible fisheries, including reconsideration of the extent and type of support provided to the sector.

This report analyses the impacts of transfers on key aspects of the economic, environmental and social dimensions of the sector. An integrated analytical approach is required because transfers have an impact on resource stocks, rent generation, economic profitability, trade in fish and fisheries products, investment in fleet capacity, employment, regional growth and social cohesion. They are also used to address a broad range of economic, social and environmental objectives and it is critical that governments ensure that the sustainable development of the sector is not hampered by policy incoherence between the range of objectives and policies in these areas.

Analytical Framework

The analytical framework used in this study is based on the sustainable development concept. Government implementation of a transfer policy will impact firstly on the economic dimension as it is an economic policy instrument designed to change the prices faced by agents in the sector, or to change the relative wealth of participants. The effects on the economic dimension will then flow through to the environmental and social dimensions, which will in turn generate dynamic feedback effects amongst the three dimensions. The main advantage of taking a sustainable development approach is that it allows the full range of short-term and long-term effects of transfer policies to be addressed, potentially identifying and avoiding unintended or unforeseen consequences.

From an *economic perspective*, all transfers will, to a greater or lesser extent, reduce the costs or raise the incomes of fishers and other sector recipients (for example, vessel

builders and gear suppliers). This will occur either directly (for example, through transfers such as fuel tax exemptions or grants for construction or modernisation) or indirectly (for example, through the government provision and funding of management services and infrastructure). The consequent impacts on the sector will then depend critically on the type of management system in place, the effectiveness with which management regulations are enforced, and the status of the stocks being fished (i.e. whether they are overfished or underfished).

In general, a transfer will initially augment the profits of fishing enterprises. In open access fisheries where there is little or no effective management, transfers will lead to increased fishing effort through investment in new gear and fishing vessels and a more intensive use of existing vessels. In the long term, the excess effort in the fishery will lead to resource rents being competed away, reduced catches and fish stocks, and reduced profitability.

Introducing catch controls, if they are perfectly enforced, will not have any effect on fish stocks or fish catches, provided that the target total allowable catch is set primarily with respect to sustainable yield (but recognising that other policy factors may occasionally play a role). However, if the catch controls are not perfectly enforced, or if there is no control on fishing effort, then there is likely to be increased effort entering the fishery with lower revenues, higher costs and resource rents being competed away. Effort controls on their own will only partially overcome this problem because it is very difficult for fisheries management agencies to effectively regulate every aspect of fishing effort (time at sea, vessel size and power, gear, number of people, skills of skippers and crew, etc) and fishers are, to varying degrees, able to expand effort along uncontrolled dimensions.

The use of individual rights to catch or for fishing effort will significantly change the outcome of the provision of transfers as they will eliminate the need for fishers to race to catch the fish and introduce an incentive for fishers to land catches at minimum cost. Financial transfers will only serve to increase both the profits in the fishery and the market value of rights (if the rights are transferable). If transfers are incorporated into the expectations of fishers and communities, they will have a negative impact on resource management and sustainability.

The *economy-wide effects* of transfers to the fishing sector have received little attention in the policy debate to date because, with some notable exceptions (such as Iceland), the fishing sector is relatively small in terms of GDP and employment. However, the sector often plays a more significant role in terms of trade and for employment and income in coastal regions. Transfers divert human and other resources into the fishing industry where they yield a lower return than in the economy at large. Indeed, their long term contribution can even be negative, as would happen when transfers exacerbate the depletion of fish stocks that results from the poor or ineffective management of the sector.

The *trade effects* of GFTs represent the final dimension of the economic pillar and have been the focus of much discussion in the WTO negotiations on fisheries subsidies. It is difficult to generalise about the likely effects of GFTs on trade patterns. If there is open access, or if management regulations are not effectively enforced, then transfers may well result in those fishers receiving the transfers being able to expand supplies to the domestic and world markets, thereby affecting trade flows and prices. Over the longer term, trade expansion induced by transfers, which is not underpinned by effective management, will be counter-productive in terms of reductions in catches and fish stocks

in the country providing the support. Expansion of supply can also arise if transfers are applied to under-exploited fisheries or to aquaculture operations (and the latter may place pressure on the harvest sector to also expand production or, alternatively, to seek support).

The *environmental effects* of transfers flow directly from the economic effects and can be divided into three main sets of impacts: effects on the target fisheries; effects on associated fisheries resources (i.e. bycatch); and effects on the broader environment. The combination of catch controls, effort controls and rights based management will have a range of effects on target stocks. The more effectively a management regime restricts the catch of the target stock, then the lower will be the likely effect of transfers on the stock. The impacts on multi-species fisheries are more complex to assess as they depend on the nature of species interdependence and whether fishers can target different species.

Transfers which lead to increased effort and catches may also result in the increased bycatch of non-target species and, paradoxically, many OECD countries have also introduced bycatch reduction plans accompanied by financial support for the purchase, installation and operation of more “environmentally-friendly” fishing techniques and gear (such as bycatch reduction devices).

The *social dimension* of GFTs is particularly significant as a number of OECD countries have historically used some types of transfers to address social concerns such as regional development, community support and unemployment in fishing communities. However, it has been increasingly recognised that social policy tools, rather than fisheries management tools, should be the main mechanism to meet social objectives, or they should at least be coherent and mutually supportive.

Financial transfers can have an impact on individual capabilities and human capital through improving education and skills of fishers and their families, improving their health and reducing poverty. However, they can also serve to reduce individual and community resilience and the flexibility to respond to changes in economic and natural conditions. Expectations of on-going government support can become embedded in decision-making processes of fishers and their communities, insulating the sector from necessary adjustments, and further reducing the incentive to diversify economic activities. Transfers can also inhibit or support the development of social capital within the sector.

Effects of Different Categories of GFTs

Research, management and enforcement expenditures are a central feature of GFTs in OECD countries. These transfers are essential in ensuring that publicly-owned fisheries resources are appropriately managed, research is undertaken to underpin management settings and regulations are enforced. It is generally assumed that such transfers are benign in terms of economic and environmental impacts on the sector although their effectiveness in meeting management objectives has not been empirically tested as yet in OECD countries. There is also scope for increasing cost recovery and user charging to improve the efficiency of service delivery in this area, particularly for those services where the industry is the sole beneficiary.

Governments provide a variety of *fisheries infrastructure*, such as harbour and landing facilities, navigation services, and search and rescue support. In the absence of user charges for the use of government provided infrastructure, the costs of the fishing industry are reduced and potential profits increased, irrespective of the management

regime in place. The environmental effects, however, are dependent on how well catches and effort are constrained. In the absence of effective limits on catches and effort, such transfers could increase pressure on stocks by artificially reducing fishers' costs and making fishing more attractive. This can also have an impact on community resilience by sending mixed signals about the sustainability and profitability of fishing activities.

Payments for access to other countries' waters may involve an explicit monetary transfer, the transfer of fishing technology, assistance with improving fisheries management institutions, the provision of market access in the fishing country, or some combination of these. The effects of access payments will differ between the countries providing the transfer (the distant water country) and receiving the transfer (the host country) and the management arrangements in place in both countries. In general, there are unlikely to be any effects on the fish stocks of the distant water country and the access payments will help to boost the income of the distant water fleet. The effects on the fish stocks of the host country will depend on whether the incoming capacity displaces or adds to existing capacity and the effectiveness of the management and enforcement in the host country.

The provision of **payments for vessel decommissioning and licence retirement** is a key feature of many OECD countries fisheries policies. They have been increasingly used in recent years as means of addressing the over-capacity in many OECD fleets (which occurred at least partly as a result of the past provision of vessel construction payments). However, the available evidence suggests that most vessel decommissioning schemes fail to reach their objectives and that some may actually increase overcapacity as they inject new capital into the sector. Effective decommissioning and licence retirement schemes should be implemented in conjunction with management changes to insure that effort does not leak back into fisheries. Caution is also needed to ensure that the social effects of the transfers are not counter-productive and that the transfers are provided as part of a larger package of social adjustment measures.

Transfers for investment and modernisation include government payments and tax incentives for the construction and modernisation of fishing vessels, as well as loan guarantees and loan restructuring schemes. Many countries have only recently changed their funding priorities away from vessel construction. Transfers to vessel modernisation are still widely provided although the effects of such transfers may be similar to the effects of support for vessel construction, in particular when the payments effectively increase fishing capacity. The dependence of regional communities on support for capital costs can reduce the community resilience and increase dependence of regions on government support.

OECD countries also provide **transfers for income support and unemployment insurance**, including direct payments to employees and vessel owners, industry specific unemployment insurance schemes, and payments for temporary cessation of fishing. Income support to employees reduces the costs to firms of keeping them in the industry and can often prevent adjustment away from unsustainable levels of fishing. The social dimension is particularly significant as income support can often work to increase community dependence on government support and reduce community resilience.

A number of **other cost-reducing transfers and direct payments** are also provided by OECD countries, including interest subsidies, fuel tax exemptions and price support mechanisms. Many of these transfers will increase incomes or reduce variable costs, and will more directly affect the competitive position of fishers in international trade.

Key findings

It is clear that *transfers have an important, but limited, role to play in fisheries management policy*. They are an important part of the government's policy toolbox as they are used to provide research, management and enforcement services that may not necessarily be supplied by the market. However, this is generally limited to a subset of fisheries services, the benefits of which flow to the community in general, rather than to the industry specifically. The other major rationale for the provision of transfers is to assist the industry during times of structural change. Temporary transition payments can ease the burden of adjustment of restructuring, and can help set segments of the industry on a sounder footing.

Outside these areas of clear market failure or temporary assistance, the rationale for transfers is not clear cut. Transfers increase the profits of the industry in the short term and the benefits of particular transfer policies need to be weighed against the potential costs. Transfers become capitalized in the asset values of vessels, quotas and access rights, reducing the flexibility of the industry to adjust. Depending on management settings, there may be impacts on trade patterns and pressures arising from increases in capacity, which may also have international spillover effects (for example, in IUU fishing). Cost-reducing transfers insulate the fishing industry from the real costs of their operations and artificially inflate profits, inhibiting industry adjustment to changing economic and environmental conditions.

The study has highlighted the *shortcomings in the transparency* of fisheries support programmes in many OECD countries. Much of the data and information on the programmes are difficult to access and analyse, and there remain significant gaps in the data. Particular areas of concern that have been raised cover the extent of sub-national transfers (at regional and local levels) and the cost of off-budget items such as tax concessions, loan guarantees and interest subsidies.

It is clear that *an integrated approach to assessing support programmes* is required. Financial support to the fisheries sector has a wide range of impacts, often reaching beyond the intended target(s) of the programmes. Such policy inadvertence can be particularly critical in the fisheries sector where getting policies wrong has a high cost in terms of long term impacts on an often fragile resource. Identifying the inherent trade-offs in balancing competing objectives and ascertaining the dynamic (second and third round) highlights areas of actual and potential policy incoherence.

The *effectiveness of the management regime and its enforcement* is critical in determining the effects of transfer programmes. Importantly, it is the effectiveness of the management regime in enforcing rules and securing rights that is a key factor, just as much as the type of management regime itself. Anything less than perfect enforcement will generally result in adverse impacts on all dimensions and under all management regimes. Whether these adverse impacts lead to a net welfare loss as a result of the transfer policy is an open empirical question which will vary according to the conditions applicable in different fisheries settings. However, there are some types of management regimes which tend to be more robust than others. For example, management regimes which are characterized by stronger access rights will tend to be more self-enforcing as the industry has a greater incentive to cooperate with enforcement measures. A higher degree of stakeholder participation is likely to reinforce this incentive.

Financial support for the sector should be de-coupled from fishing activity in order to ensure that fisheries management policy tools are not used as the primary means to

achieve social and regional development objectives. The analysis has highlighted the problems that arise when financial support is linked to fishing activity, either directly (through cost-reducing transfers) or indirectly (through income support programs). Many transfers tend to increase dependence on financial support, reduce individual and community resilience and inhibit adjustment to changing conditions. While there is clearly a need for government intervention to address pressing issues in these areas, using fisheries management as the major mechanism carries a significant risk that one of the fundamental objective of sustainable fisheries – stock conservation – will be compromised and will send blurred policy messages to sector participants.

Imposing time limits on support programmes will improve their effectiveness and increase community and individual resilience. Expectations of government assistance tend to become embedded in the decision making processes of fishers and fishing communities. Expectations of ongoing government support reduce the flexibility of individuals and communities to respond to fluctuations in economic and natural conditions. The incentives to invest in diversified economic activities are likely to be reduced as the expectation of continued government support will insulate the sector from necessary adjustments.

Finally, it is evident from the experiences of a number of countries, such as Norway, New Zealand, Iceland and Australia, that *the reduction of financial support does not necessarily spell doom and gloom for the industry* and have generally resulted in increased profitability and reduced dependence on government assistance over the medium to longer term from reducing financial support. Reduction in financial support was not the only factor in the evolution of the industries in these countries as the process of adjustment as part of a broader package of management reforms designed to set in train structural changes that put the industry on a more sustainable footing from an economic, environmental and social perspective. In each case, stronger access rights were instituted, generally with the active cooperation of the industry. Ineffective firms disappeared, improving the balance between the available resources and the fishing fleet, helped by improved management regimes which helped to internalize the dynamic process of fleet capacity adjustment.