



Fair fishing

Supporting inclusive
fiscal reform in fisheries

iiied

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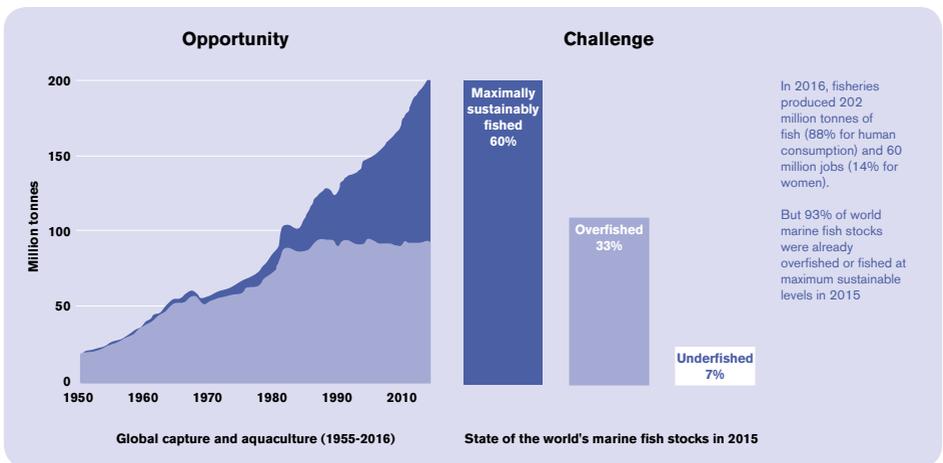
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1. Introduction

Urgency for action

Fish production, from both capture and aquaculture, is large and growing. But, while fisheries provide opportunities for economic growth, jobs and food security, there are also significant challenges linked to overfishing and the degradation of marine stocks (see **Figure 1**). In 2016, global fisheries produced over 200 million tonnes of fish,¹ generating about US\$362 billion and providing jobs for almost 60 million people (14% of whom are women). The average annual increase in fish and crustaceans consumption exceeds population growth and consumption of any type of terrestrial meat.² However, sharp decreases in natural fish stocks have accompanied this boom: by 2015, 93% of fisheries were either overfished or being used at maximum sustainable levels.² The traditional response to diminishing fishing stocks has been to push for technological change that allows fishers to exploit deeper and farther, spiralling the rates of depletion.

Figure 1. Opportunities and challenges from fisheries



Source: Author's own, using data from FAO (2018)²

Growing demand – combined with the absence of meaningful licence prices, subsidies (mostly targeting large-scale industries in high-income countries³), overfishing, depleted and degraded stocks and a lack of resource governance – created losses of around US\$83 billion in 2012 (up from US\$50 billion in 2004).⁴ Reverting the process and reducing global fishing efforts to allow long-term stock recovery will require decisive and immediate action. The economic benefits of such action would be significant. These are predicted to rise from US\$3 billion to US\$86 billion a year as the biomass of fish would increase by a factor of 2.7, which would result in a 13% increase in harvests and 25% higher fish prices.⁴

But such action can be socially and politically difficult. They will require better pricing of fishery resources (such as licences) and decisive action to reduce and eliminate subsidies to reduce over-extraction waste (known as 'harmful subsidies'). The latter would free up valuable resources that could promote positive actions to restore wild habitats and fish stocks. It would also send market signals aligning effort with real production costs. But any reform will have distributional impacts and policymakers will need to put careful social considerations in place before bringing such changes into effect.⁵ Low-income countries also lack the institutional structures – such as alternative job opportunities or compensation packages – they need to ensure that negatively affected vulnerable groups are not harmed.

To gather support for short- and long-term responses to overfishing and overcapacity and to design fair, inclusive policies, governments, practitioners and decision makers must map actions – such as habitat restoration, smarter coastal development policies and targeted poverty alleviation programmes – estimate benefits and costs beyond immediate monetary values and understand how the changes will affect different interest groups.

Scope and purpose of this toolkit

This toolkit focuses on fiscal fisheries management instruments, which governments use to influence economic decisions on government spending and raise revenue through taxation. They include taxes, charges and royalties – which governments use to discourage actions – and direct subsidies or tax breaks, which they use to encourage decisions linked to investments and consumption. When combined with regulations, fiscal instruments can play an important role in environmental policy.

In fisheries, many inputs and activities are heavily subsidised. These subsidies include fuel for fishing, the vessels themselves and more environmentally sustainable subsidies to improve conservation and fisheries management. There are taxes on fish catch at landings or point of sale and taxes on fishing gear. Governments can use price signals on water extraction and waste disposal (including plastic and toxics) to manage the quality and quantity of water in freshwater and coastal ecosystems. This document will help the user understand the main opportunities and challenges of fiscal instruments available for managing fisheries. It also aims to build up the argument of why it is important to reform some fiscal instruments to enable more inclusive and sustainable fisheries.

A key audience is fisheries departments and agencies, particularly those interested in improving the conditions of small-scale fisheries. Small-scale fishery organisations and co-operatives will also benefit from better understanding the impacts fiscal reform will have on their activities. This will enable them to negotiate fairer deals towards more inclusive and sustainable fishing policies.

Format of the toolkit

Section 1 (Introduction) presents the scope and audience of this toolkit.

Section 2 describes the main policy tools and fiscal instruments for managing fisheries.

Section 3 discusses fisheries subsidies, presenting examples of prevalent subsidies, the need to reform harmful subsidies to reduce overfishing and the importance of compensation to help vulnerable groups manage the transition.

Section 4 focuses on the potential of environmental taxes and charges to increase revenues while sending the market signals to reduce waste.

Section 5 brings in a discussion of the nature of impacts and the need to tackle distribution issues before, during and after reform.

Section 6 summarises strategies to change narratives and speed up action.

Finally, **Section 7** highlights recommendations for policymakers in fisheries departments and government agencies and presents additional resources for practitioners interested in environmental fiscal reform.

2. Policy tools for fisheries

Fisheries management requires multiple interventions – in the form of regulations, property rights and economic instruments such as tradeable quotas, taxes and subsidies – to deal with a variety of problems at multiple scales. Some situations may require one or more instruments, alongside ongoing dialogue to inform policy design and monitoring. **Figure 2** highlights some of the key problems affecting fisheries at various scales, from inland and coastal ecosystems to marine areas. Fuel subsidies are notoriously bad for the environment,⁶ regardless of the sector (agriculture, forestry, fisheries) as they often result in overcapacity and over extraction. This document helps provide arguments to support fiscal policy action for fair and inclusive fisheries.

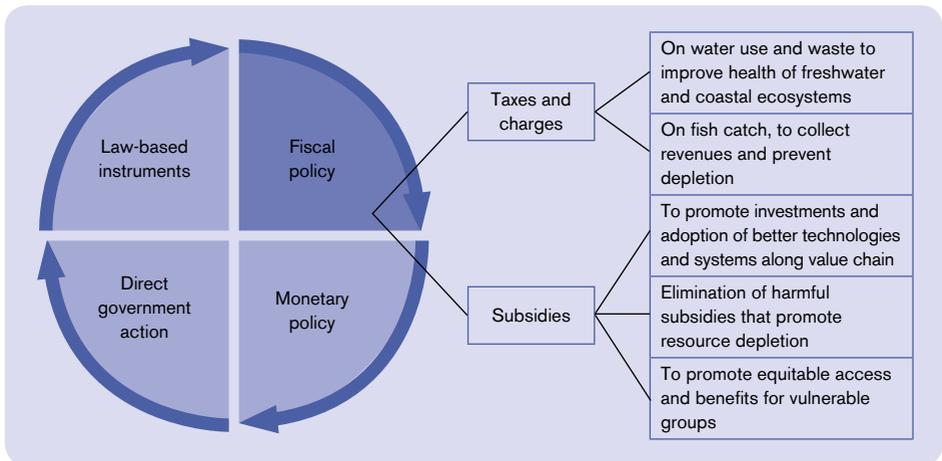
Figure 2. Policy actions for inclusive fisheries management

	Inland and coastal ecosystems	Marine ecosystems	Policy actions
Ecosystems scales		Maritime zone/zone beyond national jurisdiction. It should include both maritime zone, and zone beyond national jurisdiction 	
Issues affecting fisheries	Fuel subsidies (agriculture, energy) increase upstream water extractions and reduce flows in rivers, increasing risk of salinisation.	Fisheries subsidies and tax breaks for fuel and technology artificially reduce costs and result in overcapacity of fleet and overfishing.	Phase out, eliminate and/or adjust subsidies.
	Lack of regulation and charges for waste disposal (including plastics) reduce quality of coastal nursery grounds, wetlands and mangroves.	Lack of low charges to catch, and government's lack of capacity to collect rents.	Introduce/upgrade charges, invest in better collection and monitoring.
	Uncontrolled construction and dredging destroys coastal nursery grounds including wetlands, seagrasses and mangroves.	Unregulated and illegal destructive techniques (dredging, dynamite) destroy habitats.	Introduce/enforce regulation, prohibitions and invest in enforcement. This includes land planning at watershed levels.
	Lack of targeted action to support poor fishing families during bans and transition periods.	Lack of marketing facilities reduces fishers bargaining power and increase waste.	Compensate and invest in data collection for monitoring.
	Lack of information on health of fisheries, catch, and people involved.		Coordinate and invest in data collection for monitoring.

Source: Author's own

Figure 3 presents the main policy instruments governments use to manage fisheries: law-based instruments, direct government actions and fiscal and monetary policy. Their impacts can be direct – for example, a government-built landing site to promote market access – or indirect, such as a monetary policy affecting interest rates to attract corporate investments in the country.

Figure 3. The macro-policy area: policy instruments for fisheries management



Source: Author's own

Law-based instruments, which are binding and can be implemented by force, include legislation, regulation and authority. Examples include zonings and development approval powers, laws, resolutions and administrative acts, standards and compliance, technology specifications, product bans and limitations, trackable emissions and reporting requirements. In fisheries, they include marine park creation, zoning plans for coastal developments, fishing quotas (including tradable fishing rights, such as the Vessel Day Scheme)⁷ or regulations on fishing gear.

Direct government action includes public service programmes, new institutions and funding for statutory bodies. In fisheries, this includes funding for a ministry and/or department of fisheries, local officials, government research programmes and dialogue and negotiations with international bodies like the World Trade Organization and United Nations. Dialogue and negotiation are basic in developing the governance required to address connections between local fisheries and global drivers of change.

Monetary policy is managed by the central bank and controls the amount of money and credit in the economy, which in turn affects interest, inflation and exchange rates. There are three main instruments: open-market operations (buying and selling government securities, bonds or treasury bills), lending base interest rate (central bank base rate charges to institutions) and reserve requirements. Other lending institutions – such as money lenders and co-operatives – can issue their own credit, which may dilute the effectiveness of central bank monetary policies. This is a common situation in many developing countries. Instruments linked to fisheries and other environmental policies, such as climate change, include green bonds or green quantitative easing (whereby the central bank circulates new money)⁸ and soft interest rates as instruments to de-risk investments in fisheries. Simple actions like providing information on and transparency in lending rates can be an important step towards inclusiveness, helping fishers understand the prevailing rates of interest their lenders get.

Fiscal policy affects spending in a country; its goal is to correct environmental market externalities (see **Box 1**). There are two basic instruments for fiscal policy: those linked to spending and those linked to revenue collection. Their ability to influence behaviour will be in turn linked to the government's capacity to implement actions in case of infringement – for example, dealing with tax avoidance or monitoring compliance with the terms attached to subsidies.

Environmental fiscal instruments raise revenue and allocate resources while simultaneously furthering environmental goals. This is achieved through economic incentives to correct market failures in natural resource management. Governments often use several fiscal instruments at once alongside regulatory instruments such as prohibitions, standards and fishing quotas (see **Section 3** for more on fisheries subsidies and **Section 4** for taxes and charges).

Most of these instruments interact with each other: governments will fund direct actions through fiscal instruments (taxes) or monetary policy (issuances and borrowing). They commonly use subsidies to encourage companies or individuals to adopt new regulations – for example, by reducing the cost of cleaner technologies. The effectiveness of introducing taxes or regulations is in turn linked to a government's capacity to enforce compliance, collect taxes and reduce conflict.

Box 1. Correcting market externalities

Environmental externalities take place when one person's private actions affect others and no cost or benefit is associated with the action. Negative externalities include:

- Smoking in a public place, reducing air quality for everyone
- Noise from a motorway, affecting the quality of life in adjoining neighbourhoods, and
- Factories dumping waste in rivers, reducing water quality for fisheries.

An example of a positive externality is when people protect and restore mangroves without compensation beyond the benefits they create for themselves and others in the form of more biodiversity, better fishing habitats and coastal protection. These are known as 'market imperfections'. They happen because many environmental benefits and harms do not have a price.

Governments can use fiscal policies such as prices, taxes and subsidies, to correct market imperfections or promote the adoption of practices when costs exceed private gains. This is particularly important in the early stages of technology testing and adoption. They can use subsidies to increase the economic viability of an activity that results in better provision of public goods – for example, a payment for ecosystem services that improves mangrove restoration in coastal communities.

They can use taxes to promote economic efficiency – for example, imposing an emission tax where there are no costs to discharges. Economic theory suggests that each polluter will reduce their pollution to the point where the marginal cost of pollution abatement is equal to the tax (and/or the penalty of being found at fault).⁹ So governments can use taxes to send signals to switch to environmentally friendly technologies.

Poorer and vulnerable fishers may be at a disadvantage if they cannot afford newer technologies. One option to compensate for this negative impact is redirecting some of the revenues from an environmental tax towards targeted actions supporting these vulnerable groups. This is known as 'revenue recycling'.¹⁰

3. Subsidies and compensations

Why are they important?

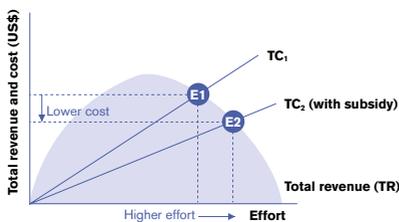
Fisheries subsidies are powerful tools, used by small and large countries alike. They are positive incentives given to people and industries along the value chain to encourage behaviours in line with specific policy goals. These could be increasing production or harvest efforts (see **Box 2**), increasing the number of jobs in the sector, increasing women's participation, introducing more efficient and cleaner technologies or encouraging compliance with fishing bans. As in many other sectors, subsidies can also be highly political, with the explicit or hidden objectives of increasing government visibility and/or responding to powerful lobbying groups.¹¹

Box 2. How do subsidies work?

Governments can use subsidies to artificially reduce the costs of production in fisheries – for example, by providing cheap fuel – to increase harvest effort. **Figure 4** shows how the 'offer of effort' or investment level is linked to harvest potential. Effort initially increases as stocks are plenty and decreases when stocks are reduced. Equilibrium is reached when revenues from effort equals total cost (E_1). Introducing a subsidy artificially reduces total costs (from TC_1 to TC_2), leading to a new equilibrium with higher effort (E_2) towards harvest. Excess of effort in relation to available fish stock leads to overfishing.

In theory, subsidies are temporary measures linked to introducing a new technology or exploring new fishing grounds and are politically useful to introduce. In practice, they tend to become entrenched and politically difficult to withdraw.

Figure 4. The economics of fishing subsidies



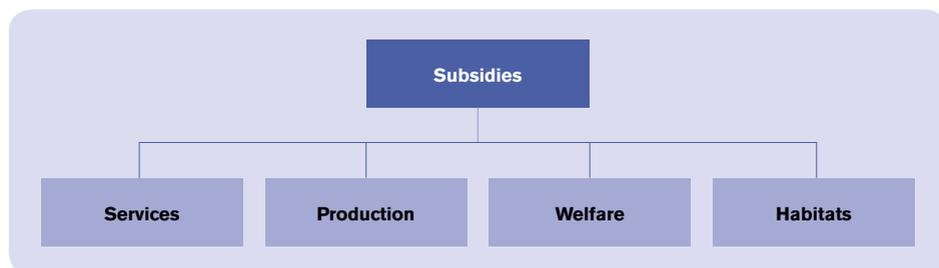
Note: Total cost should also include opportunity cost, which is the value of the best alternative rejected in favour of fishing.

Source: Author's own, based on Gordon (1954)¹²

Types of subsidy

Subsidies can be direct cash payments or indirect incentives like tax breaks and access to duty-free areas. **Figure 5** shows the four main categories of subsidy. They can take place at different stages of the fishing value chain – from input to catching, processing or marketing – and can address welfare or health of aquatic habitats. In practice, the bulk of subsidies go to harvesting.¹³ **Table 1** presents examples of subsidies in fisheries.

Figure 5. Main fisheries subsidy categories



Source: Author's own, based on European Commission (2016)¹³

Table 1. Types of fisheries subsidy

Subsidy type	Description	
Services	Indirect benefits to actors that reduce the cost of the sector, such as: <ul style="list-style-type: none"> • Building common infrastructure: roads, landing or markets • Actions to manage fisheries access • Enforcement of fishing regulations • Protection against natural disasters • Research. 	Japan invests billions every year providing disaster protection (against earthquakes and tsunamis) and insurance to port facilities and coastal infrastructure and re-establishing fisheries and the fishing industry following natural disasters. The 2011 tsunami resulted in a temporary reduction in fleet capacity, which was subsequently replaced with new and more powerful units.
Production	Direct subsidies to individuals and companies that impact profitability by lowering operating costs, including: <ul style="list-style-type: none"> • Subsidies for inputs: fuel, ice, gear, vessel construction, purchase of engine • Subsidies for infrastructure: storage and marketing Subsidies for modernisation are usually treated separately from vessel construction. Fleet modernisation is often promoted through tax exemptions.	Wallis and Futuna in the South Pacific provides a subsidy of up to 60% of construction cost for new fishing vessels and sea safety equipment is tax-free. ¹⁴ Almost 60% of subsidies in Russia are direct payments for management and enforcement. Note: when fuel subsidies are provided as tax exoneration they do not count as public expenditure.

Welfare (social assistance)	Paid to individual fishers and fishing families through income support, subsidised training and capacity building, support to establish businesses and income tax exemptions.	Income tax exemptions are not effective in informal markets where actors do not report incomes or pay taxes. Subsidies in other (non-fishery) sectors can also affect fisheries. For example, family food subsidy programmes in Micronesia required that at least 25% of food coupons be used to buy local foods, including fish. ¹⁵ Studies find that increases in family purchasing power can reduce dependence on subsistence and non-commercial fishing, especially along reefs and coastal areas. ¹⁶
Habitats (resource access)	Includes payments for suspension of access rights on a temporary or permanent basis.	In Bangladesh, hilsa fishers receive a payment for ecosystem services as compensation during temporary fishing bans, to help speed fish stock recovery. ¹⁷

Source: Based on European Commission categories¹⁹

A slippery slope: why subsidies turn harmful

There is increasing pressure to reform traditional subsidies in fisheries, especially those with perverse or harmful impacts that lead to unintended environmental or social consequences. Governments have economic or political reasons for introducing many of these subsidies – such as food security creating jobs, GDP or global expansion into high seas – to expand the fishing industry. But this is leading to overcapacity in the industry that is well beyond the natural regeneration capacity of the stock, resulting in overfishing and seriously reducing existing wild fish stocks (see **Box 3**). By 2015, 93% of fisheries were overfished or fished at maximum sustainable levels.²

Box 3. Halting overcapacity and overfishing

Fishing capacity is the amount of fish (or fishing effort) that a fleet or vessel can potentially catch over a given period if fully used. Usual capacity indicators include: number of boats in a fleet; boat type and hold size; engine and gear types; and number of days they can operate.

Overcapacity happens when the size of the fishing fleet and its harvesting ability or fishing power exceeds what is considered an optimum or sustainable yield. This often happens because fisheries are open access (unrestricted) with unclear property rights. This leads to a race to fish farther, deeper and faster, increasing the number of fishers and vessels. This 'race to fish' is further fuelled by subsidies that artificially reduce fishing costs or encourage larger vessels or better gear, communication and fish-finding technologies (known as technological creep) than would otherwise be economically viable.

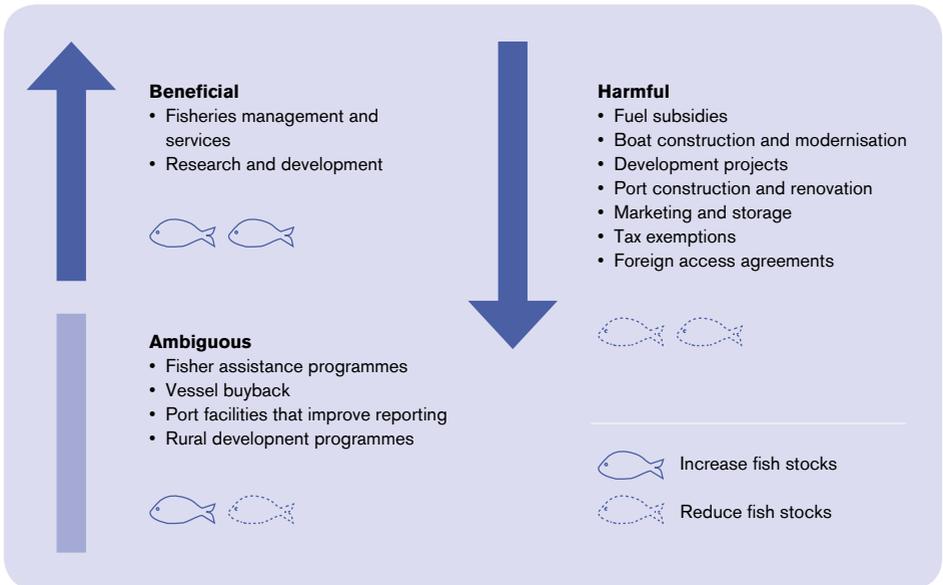
Overcapacity represents economic waste even if quotas are effectively enforced. In the absence of effective fisheries management, overcapacity leads to overfishing and incentivises illegal, unreported and unregulated fishing. Many actions to improve productivity in fishing techniques become threats to ecosystems. Overfishing can have severe environmental impacts, such as:

- Local species extinction: white abalone or *Haliotis sorenseni* has nearly disappeared in California
- Changes in food web structure such as organisms that co-exist in aquatic habitats
- Incidental catch that affects threatened species, including sharks, rays, turtles or sea birds, and
- Destruction of ecosystems through active fishing gear that trawls and dredges the seafloor or widespread use of bomb/blast fishing.

Dealing with overcapacity requires a mix of rules, regulations and fiscal instruments. This could include decommissioning vessels, imposing restrictions on new gear, introducing taxes and royalties to discourage overinvestments and reducing or eliminating fuel subsidies to fleet. It also requires better stock knowledge to establish fishing quotas and rights-based management schemes that encourage co-operation rather than competition in fishing grounds.

Incentives that promote good behaviour – such as supporting monitoring and enforcement actions, marine protected areas and compensation for seasonal fish bans – can help accelerate fish stock recovery. By affecting fishing effort, subsidies have impacts on fishery stocks. **Figure 6** classifies subsidies as beneficial (increasing stocks), harmful (reducing stock) or ambiguous (doing a bit of both), depending on their impact on fish stocks.^{18,19,20} Most subsidies are for fuel, which have negative impacts on wild fish stocks.

Figure 6. Classification of subsidies according to their impact on fish stocks



Source: Author's own, based on Sumaila (2015)¹⁹

There is a need for further analysis to understand other subsidies trade-offs, especially regarding distributional impacts across groups⁵ and through time. There is mounting pressure from international bodies to redesign and readdress subsidies (see **Box 4**).

Box 4. Urgent call to remove harmful subsidies

Removing and prohibiting harmful subsidies is part of WTO negotiations for the next ministerial conference, which aims to deliver SDG target 14.6 by the end of 2019. This includes subsidies that contribute to overcapacity, overfishing and illegal, unreported and unregulated fishing. The negotiations include a commitment to improve the reporting of existing fisheries subsidy programmes.

Developed countries provide the majority of the world's fisheries subsidies,³ heavily subsidising their fleets to reduce operating costs, keep prices down and increase private profits for expansion outside exclusive economic zones. But artificially reducing prices can lead to over-consumption of fish resources and a vicious circle of overfishing and overconsumption. Some countries spend billions each year promoting and expanding fisheries.¹³ They include Japan (€1.2 billion), South Korea (€1.7 billion), Russia (€277 million), the US (€1.5 billion) and China (about €5.6 billion/year supporting their 'going global' strategy). Globally, subsidies amount to US\$25–29 billion per year, equivalent to 30–35% of the value of total catches.¹⁸ Fuel subsidies are the largest type of fisheries subsidy.

Reducing or eliminating these harmful subsidies can free up valuable resources to promote positive actions to restore wild habitats and fish stocks, design sustainable coastal development and poverty alleviation programmes and send market signals that align effort with real production costs.

Reforming subsidies

There are at least five options for reforming fisheries subsidies:²¹

1. **Eliminate them:** This would create immediate significant savings and significant benefits to fish stocks. But decision makers need to consider the trade-offs in terms of short-term economic and political costs: who benefits, who loses and how much do they win or lose? Governments can use the money saved by eliminating subsidies to compensate vulnerable groups and improve fisheries governance.
2. **Decouple them from fishing effort:** Subsidies that enhance production will most often result in overfishing. Governments can change the nature of fisheries subsidies to avoid this trap – for example, providing income support or subsidies to clean up water bodies from plastic.

3. **Reorient resources to promote positive actions (revenue recycling):** Governments could invest instead in fisheries management, technological improvements, research and development, temporary fisheries closure, promoting partnerships with countries that share fish populations (including exploring legal approaches), developing gear that reduces bycatch and exploring opportunities and challenges of wildlife and aquaculture approaches.
4. **Introduce conditionality to meeting sustainability criteria:** For example, complying with certification requirements from the Marine Stewardship Council. There are important lessons on what does and does not work when using payments for ecosystem services to introduce conditionality on environmental actions, such as paying people to restore or protect mangroves.^{22,23}
5. **Buybacks:** Governments can buy and decommission fishing vessels to reduce capacity. For this to work, there must be regulations in place to prevent actors buying new vessels or to reduce the entry of new players. Experience shows that buybacks have limited long-term impact on fish stocks in practice, so decision makers should take limitations into account if choosing this option.

In **Sections 6** and **7**, we discuss the potential impacts of such changes and strategies for influencing narratives to speed action.

4. Taxes and charges

Why are they important?

Taxes and charges are one of the main government strategies to raise revenues. Apart from their basic function of raising funds, environmental taxation also seeks to address market failures that fail to recognise the values of the environment, often leading to pollution and environmental destruction. In some situations, fiscal instruments can be more efficient than regulation and more effective than voluntary agreements.²⁴

Governments set environmental taxes to:

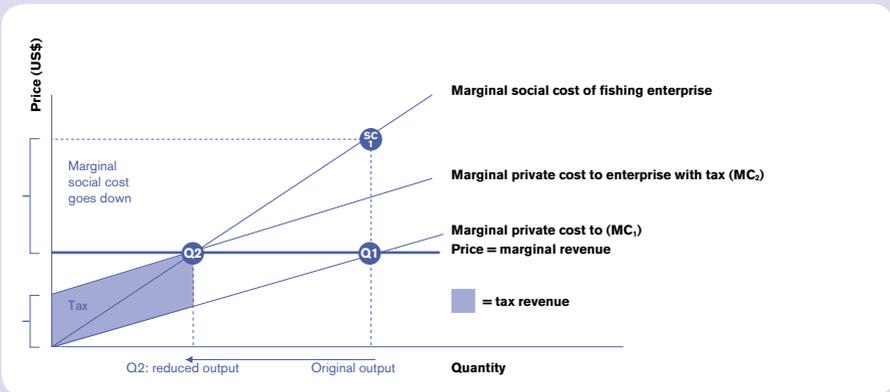
1. Internalise external costs of damaging activities – also known as Pigouvian tax or the 'polluter pays' principle (see **Box 5**)
2. Achieve desired standards of practice, determined by science or political feasibility
3. Stimulate investments in desired alternatives – for example the UK's landfill tax aims to stimulate more recycling by increasing the cost of general waste, or
4. Improve sector (in this case, fisheries) governance and reduce financial limitations of law enforcement, increasing overall effectiveness of policies aiming at sustainable management.

Box 5. How does a Pigouvian tax work?

A Pigouvian tax is a tax on an activity that generates negative market externalities on society (see **Box 1** for example). Such activities include overfishing in common grounds or waste disposal in rivers where real costs are not reflected in market prices.

The basic theory states that an agent (fisher) will harvest until his/her marginal private cost equals marginal revenue (price) (represented as Q1 in **Figure 7**). At this point, the marginal cost to society (SC1) – arising, for example, from overfishing or destroyed habitats – exceeds marginal private revenue. Introducing the tax will balance price and marginal private and social costs, resulting in reduced output (Q2) and tax revenues (represented by the blue area).

Figure 7. The economics of taxes



Source: Author's own, based on Rosen and Gayer (2014)²⁵

Environmental tax reform – also known as green fiscal reform – can promote a shift from taxing ‘goods’, like income or profits, to taxing ‘bads’, like pollution or waste. Taxes and charges send market signals to encourage waste reduction and innovation and prevent resource depletion – that is, overfishing. Most environmental tax reform is taking place in energy, carbon emissions, air and water pollution for transport and residential sectors in countries like Denmark, Finland, Germany and the UK.²⁶ Evidence from the UK’s green fiscal reform²⁴ suggests that:

- Environmental taxes are effective (they reduce environmental impacts), efficient (in terms of cost) and can raise stable revenues
- It is possible to change public perceptions of green fiscal reform through information and dialogue
- Green fiscal reform can promote investments in low-carbon industries and mitigate the impact of high world energy prices
- Targeted action – including approaches for low-income households – can address trade-offs in terms of competitiveness, and
- Dialogue networks are important to explore options, build consensus and work out details of tax reform.

Taxes and charges in fisheries

Fiscal instruments used in fisheries include taxes, charges and royalties levied on fish catch and permits to operate. Taxes and charges can apply to activities at different levels of the value chain, from those that affect the quality of fisheries habitats to providing inputs, fishing itself and trading.

Table 2 presents some of the most common types of revenue collected in fisheries-related activities. Licences are the most common method of capturing revenue. They are usually differentiated by national and foreign, small-scale and industrial. Foreign fleet licences are common in countries and island states that have less technological capacity to harvest. Such states collect most of their revenues from foreign fleet fees and taxes to industrial and semi-industrial activities at different stages of the value chain.

Table 2. Fees and charges in fisheries and related sectors

Revenue type	Key issues
Pre-harvest stage	
Access fees for foreign fishing ¹⁴	Charges made to foreign vessels for fishing in a country's maritime zones. Represents as much as 11% of government revenue in the Cook Islands and 20% in Micronesia.
	Some countries receive 'goods and services' from foreign fleets in exchange for access.
	International agreements and diplomacy affect countries' capacity to charge for foreign fisheries in territorial waters – for example, the South Pacific Tuna Treaty.
	Fee collection is influenced by climatic patterns such as El Niño and La Niña oscillations, which affect catch.
	Fee structure will depend on a country's capacity to negotiate fees and monitor both compliance and illegal activity.
	In some countries – such as American Samoa and New Caledonia – foreign fishing is not legal.
	It might be difficult to disaggregate the source of the revenue. Secrecy on access fees can be perceived as affecting bargaining power.
Licences for domestic fishing vessels	Fees vary from country to country and are usually divided by: small-scale commercial, medium-scale commercial, industrial large scale.
	Artisanal and subsistence fisheries are not usually required to pay for licences.
	Fees also apply to sports fishing and tourist-oriented nature-based marine tourism, such as dolphin and whale watching tours.
Charges for CITES permits ²⁷	For non-commercial, commercial and scientific purposes – for example, these are US\$5, US\$25 and US\$25 respectively in Papua New Guinea. ¹⁴
Bunkering fees	Floating bunkering stations provide vessels with all their needs from fuel, spare parts, ancillary equipment, food and water and even a change of crew.
Taxes on fishing inputs	Commission on ice sales, hiring of vessels and equipment.
Aquaculture	Permits to build and operate, usually combining a fixed charge with a variable fee linked to the perimeter or area of the project.
Harvest stage	
Catch taxes	Although less common than licences to operate, fees or taxes on catch (charged per tonne or kilo) can be important sources of revenue. For example, in Palau, long-liners pay US\$0.25/kg of fish landed. ¹⁴
Observer levy	A levy on trawlers funds the operations of the Fisheries Observer Agency. Observers regularly board commercial fishing vessels to monitor compliance and collect scientific data.
Harbour and landing fees	Vary by type and size of vessel.

Revenue type	Key issues
Post-harvest stage*	
Transshipment fees	Linked to the shipment of goods or containers to an intermediate destination.
Fish processing licence fees	To process fish for a commercial purpose.
Export fees	Marine export declaration fee (citizen, non-citizen, commercial, scientific research).
Fines	Revenues collected for fisheries infringements.
Linked to fisheries habitats	
Water extraction charges (for domestic, industrial and irrigation users)	To prevent over-extracting water from aquifers and modifying the flow of rivers, which can reduce inflows of freshwater into coastal marine ecosystems, affecting nursery habitats. Fees can be independent of consumption (as extraction licences) or metered and linked to consumption. Some countries allocate a part of revenues collected to payments for ecosystem services programmes to promote conservation of natural ecosystems. ²³
Water pollution charges	Water and air pollution charges are increasingly important for reducing pollution footprints. Using the polluter pays principle, they aim to change polluters' behaviour by changing the technologies they use, reducing the level of practices to reduce pollution or paying the charge to continue doing so. Revenues can be earmarked to promote improved environment and conservation initiatives. For useful information on water conservation initiatives, see www.gwp.org
Revenues from payments for ecosystem services and/or carbon offsets	Coastal habitats such as mangroves and seagrasses are important greenhouse gas sinks. Some initiatives work with coastal communities promoting mangrove rehabilitation and raising revenues by selling carbon offsets. A good example is the Mikoko Pamoja project in Kenya's Gazi Bay (www.planvivo.org/project-network/mikoko-pamoja-kenya). While not a straightforward process, it provides valuable experiences of how to link coastal conservation climate change action to large programmes such as REDD+ and intended nationally determined contributions plans.

* Note: Power imbalances in value chains (see **Box 8**) are important here, because the cost of taxes on harvest, and particularly post-harvest actions, tend to be passed down the value chain.

Reforming taxes and prices

In practice, fisheries fee and tax collection is notoriously weak and over-simplistic and represents a small fraction of the extracted resources' real value. This section presents some methods that could help reform charges in the fisheries sector.

Price signals to reduce waste: a lesson from plastic bags charges

Price signals are important for improving efficiency and reducing waste. They include:

- Better structured licence fees for resource extraction
- Taxes and charges on different stages of the value chain (such as VAT), and
- Taxes or charges to polluting activities that affect fishery habitats such as plastics, other forms of solid waste and non-point source agricultural pollution, which end up in rivers and seas.

Some require additional regulation – for example, dealing with pollution will require standards and investments in waste treatment technologies. A good example of pollution charges is the UK's introduction of a five-pence charge for single-use plastic bag, which successfully reduced use by over 80%.²⁸ A metanalysis of litter in the ocean, published in 2018, suggests “an approximately 30% drop in plastic bags on the seabed in a large area from close to Norway and Germany to northern France, and west to Ireland...from 2010”, partly attributable to taxes on plastic bags in all those countries.²⁹

Upgrading existing taxes and charges to generate new forms of revenue

Successful reform needs to highlight the potential of taxes and charges to generate new forms of revenue for a country, which can be re-invested in the sector.

Fisheries can learn from other sectors, like greenhouse gas-emitting industries. For example, carbon and energy taxes help reduce demand for energy and through this, carbon emissions. Countries can re-invest the revenues from tax receipts or use them to provide the fiscal slack to reduce taxes or charges for other sectors through fair redistribution. For example, they could use revenues from fishing rights fees to help small- and medium-sized enterprises transition towards more efficient and clean technologies.

From a practical point of view, it makes sense to begin by looking at high-value species in industrial processes, such as tuna, salmon, carp, tilapia, herring,

mackerel, trout, cod, swordfish or shrimp. Tuna is one of the highest-value species targeted by national and foreign fleet vessels, offering potential for capturing resources through licence fees. There is much potential for improving the way licences are priced, allocated and collected, so they contribute to higher revenue collection while reducing the amount of tuna extracted (see **Box 6**).

Box 6. Shocking losses from archaic pricing systems

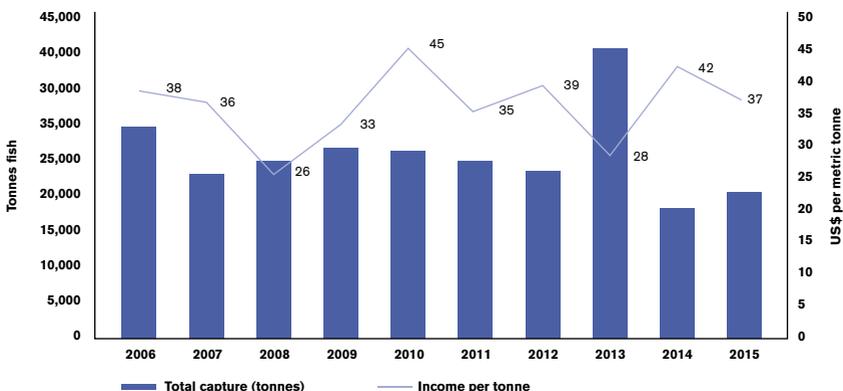
Old fee structures and legal loopholes in Costa Rica mean that tuna licences for foreign fleets are not working and are allowing national wealth to drain away.

The official fee system does not differentiate between low- and high-value species and uses the Moorsom ton, which is based on cargo capacity, rather than the metric tonne system that weighs the catch. Fees have remained at US\$54 per Moorsom ton since they were introduced in 1995.

The average commercial price of landed tuna in 2015 was US\$1,894 per tonne (US\$2,000 in 2018 prices), but Costa Rican authorities only raised the equivalent of US\$26–45 per tonne from tuna fishing licences. This is 2–3% of the real commercial value of the tuna captured each year (see **Figure 8**).

Worryingly, the final revenues could be even lower because of other benefits and exemptions for tuna operators – for example, about 18% of tuna licences are free. Costa Rica is revising its fisheries fees following publication of these findings.

Figure 8. Tuna catch in Costa Rica using purse-seine technology (2005–16)



Source: Author's own chart. Data from Jiménez and Ross-Salazar (2017)³⁰

Revising fees requires an ability to negotiate and in-country political support to carry out fair negotiations. For example, under the South Pacific Tuna Treaty, 16 Pacific Island countries receive compensation for allowing US tuna vessels to operate in their jurisdiction waters. The treaty began in 1988 and has been renewed several times over ten-year terms. The latest agreement was signed in 2016 and included US\$70 million for fisheries access and development assistance to Pacific nations.³¹

Improving collection efficiency and reducing generous exemptions

Fiscal reform should also look at strategies to improve or reform existing systems for reducing and avoiding tax evasion. This includes looking at over-generous exceptions, tax exemptions and free licences for powerful groups, widening the tax base and tackling legal and illegal tax avoidance, which takes advantage of legal loopholes.

Countries like the United States, China, Japan and India lose billions of dollars a year to general tax avoidance, while Guyana and Chad lose nearly 7% of their annual GDP.³² Countries make massive losses to tax crimes in fisheries, including through fraud over taxes on profits and earnings, customs duties, VAT and social security. Many of these are linked to the use of offshore companies and the practice of registering vessels under flags of convenience.³³

5. A balancing act: impacts and trade-offs

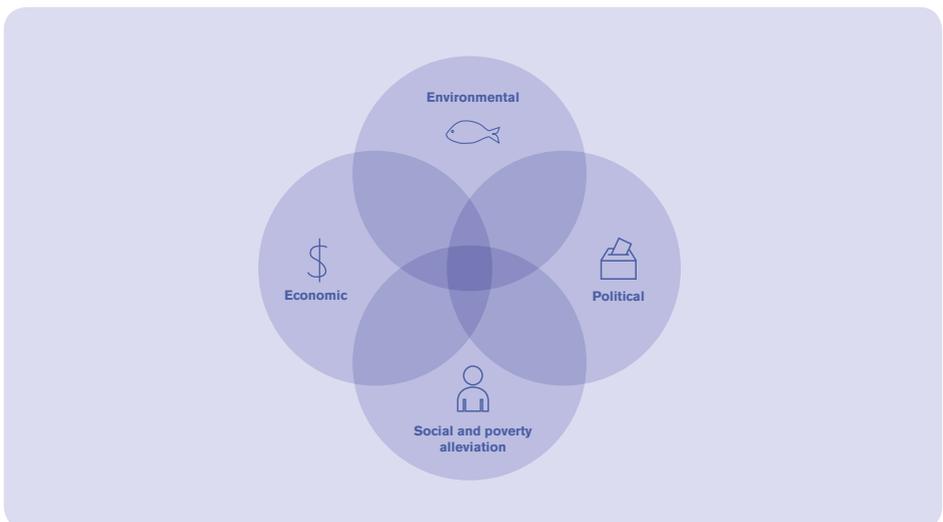
What impacts?

Decision makers need to consider the impacts of environmental fiscal reform to understand how they will affect different groups and what measures they can take to reduce negative impacts (see **Figure 9** and **Table 3**).

Introducing fiscal reform in fisheries will undoubtedly result in trade-offs. For example, reducing fuel subsidies to discourage overfishing will have environmental benefits and social, economic and political costs. So, while it will encourage stock recovery in the medium and long terms, it will also drive some fishers out of the industry, reduce jobs and income and add stress in vulnerable groups, which will lead to pressure and discontent from affected political groups.

Understanding the types and timing of impacts and who they affect will help policymakers design strategies to introduce reform and help communities cope with change.

Figure 9. Types of impacts after reform



Source: Author's own

Table 3. Possible impacts of fiscal reform

Impact type	Possible impacts
Economic	Investment levels and risk Jobs Competitiveness Available income Implementation and monitoring costs Indirect impacts in other sectors (for example, migration to urban areas prompted by decline of rural jobs). ** Note: These impacts may be felt across formal and informal value chains.
Environmental	On fish stocks On target populations Wider impacts on habitats and other species.
Social	Indirect impacts on health and quality of life Exclusion or inclusion of vulnerable groups – for example, by eliminating tax allowances Fees for previously free resources (such as water or wild fish) can negatively affect poorer households. ** Note: Impacts may be progressive or regressive across income groups.
Political	Fees and user charges can conflict with the interests of public service providers. Can lead to illicit behaviour and corruption, evasion and leakage, which in turn can lead to inefficiencies elsewhere Some business may lose their competitiveness without subsidies.

Source: Author's own, with useful information from Dressel and Staudt (2013)³⁴

Box 7. A story of loss

Well-intentioned subsidies can have significant negative impacts. Fuel subsidies for fisheries in Ghana led to a dramatic increase in canoe and semi-industrial fleets, specialising in landing small fish. Fishers compensated for declining fish stocks by adopting illegal technologies such as light fishing, fine mesh nets and dynamite. These illegal activities continued unhampered due to the local authorities' low regulating capacity. At the same time, access to legal technologies like ice and mobile phones extended fishing trips and the potential for capture.³⁵ All of this contributed to the present near collapse of fish stocks.³⁶

There are several transmission channels³⁷ of reform. Understanding them will help decision makers identify the groups that will be affected:

- **Prices:** Changes will directly affect household purchasing power and consumption patterns; prices will be indirectly affected if industries pay higher prices and pass on the cost to consumers
- **Employment:** Some industries may expand or contract, depending on the nature of the reform, affecting both informal and formal sources of income
- **Access to goods and services:** Both private and public, including networks and fishing grounds
- **Asset values:** Financial, physical, natural, human or social – for example, changes in the quality of habitats will affect houses prices or investment returns
- **Transfers and taxes** that will directly and indirectly affect households, especially those that operate in formal economies.

Box 8. Power imbalances in fisheries value chains

Small-scale fisheries often operate in informal channels, limiting the potential to capture revenues through taxes.³⁸ Upgrades in value chain governance – for example, through fishing co-operatives that provide better loans and aggregation strategies – can improve efficiency, reduce reliance on middlemen, improve small fishers' incomes and reduce the need for more fishing. The majority of profit (and therefore potential to tax) in small-scale fisheries is captured by actors further down the value chain, such as middlemen.³⁹ Interventions to unblock systems, such as eliminating monopolies, are important to target players with the ability to pay and rebalance the distribution of benefits.

Distributional concerns: who is affected?

Introduced on their own, some environmental taxes could have regressive impacts. For example, taxes to disincentivise waste could disproportionately affect poorer fishers, who use less efficient technologies. Tax exemptions to promote access to cleaner technology will not benefit people in informal markets who do not pay taxes.

Equitable and inclusive fiscal reform needs to consider the different social groups involved in reform, winners and losers (trade-offs), the direction and magnitude of the impact (both measured and perceived) and strategies for compensation. This analysis will also help decision makers understand potential risks such as power imbalances, conflict, lack of co-operation or participation and lack of access to resources and capacities.

Stakeholders include the private sector, government institutions (including ministries of finance, fisheries, sectoral and environmental agencies at national and subnational level), policymakers, media, civil society and donors. Further disaggregation in fisheries includes:

- Type of industry: large versus small-scale, subsistence fishers, domestic/foreign fleet
- Geographic scale: inland, coastal, domestic waters, beyond jurisdiction
- Vulnerable social groups: poor (including types and degrees of poverty), women, youth/elderly, rural/urban, refugees
- Timing: short/medium/long-term impacts, intergenerational issues
- Value chain stages: harvesting/processing and so on, main purpose of the harvest (meal/food), and
- Government institutions linked to tax, subsidies and capacity building.

Fiscal reform and poverty alleviation

When properly planned, fisheries fiscal reform can help poverty alleviation by freeing up financial resources to explicitly target compensatory measures.³⁷ Options include:

- Geographic targeting in fishing communities with a high proportion of poor households/differentiated price or tax structures or direct income subsidies for poor consumers
- Investing in better fisheries management, including cleaning, monitoring and restocking, which will improve access to resources in the mid and long term
- Supporting pro-poor investments or investments that target previously excluded social groups like women, such as capacity building for more efficient fisheries management, alternative livelihoods or to improve bargaining power (see **Box 9**)

- Recycling revenues to support small-scale enterprises and other sectors most affected by reform to adjust through temporary assistance
- Providing direct compensation for vulnerable groups – for example, through family income support and social protection, and
- Addressing other environmental problems that affect poor fishing communities, such as climate change.

Decision makers must take care when identifying target groups. Appropriate and transparent criteria will avoid effectively subsidising continued negative behaviour, excluding groups that need help or including better-off fishing communities and fisheries that do not (see ‘Monitoring policy targeting’ in the next section).

Box 9. Revenue recycling to support women in fisheries

Fisheries supply chains show a sharp disaggregation of men and women’s roles. Men dominate the harvest stage, while women tend to work in pre and post-harvest activities.⁵

Low women’s participation in harvesting is strongly determined by the danger and physical demands of the work, the absence of safe onboard facilities for women and the lack of maternity leave and childcare rights. Most often, women work in post-harvest, processing and marketing fish products. And although they make up as much as 46% of the workforce in nine major fish-producing countries, they often have little decision-making power.

Incentives and subsidies that target harvest will probably exclude women. Well-designed fiscal reform can provide resources to support women from fishing households to access education, health and infrastructure (including childcare support to allow women to work while their children are in safe environments). Wider action needs to address customary beliefs, norms and laws that reduce women’s access to fisheries resources, confining them to lower ends of the supply chain. It is also important to ensure that subsidies to promote industrialisation do not further marginalise women. Social protection – such as direct conditional income support – plays a key role in marginal and vulnerable fishing communities, which need to be actively included in climate change and adaptation options.

Harnessing data to understand and monitor impacts

New advances in information at local and national levels can help forecast and monitor the potential magnitude and direction of fiscal reform impacts. Below are some emerging tools to help policymakers design more inclusive actions:

Revealing the small-scale sector: Projects like Sea Around Us (www.seaaroundus.org), WorldFish's Hidden Harvest (www.worldfishcenter.org/hidden-harvests) and Too Big to Ignore (<http://toobigtoignore.net/>) focus on revealing the environmental, economic and social components of small-scale fisheries.⁴²

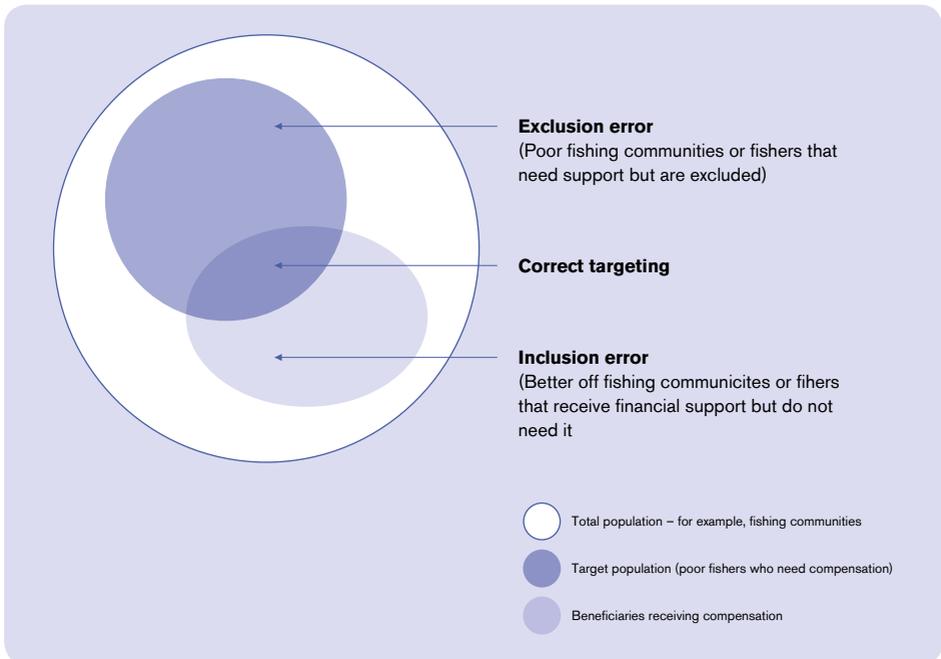
Mainstreaming in national accounts: Ongoing efforts to ensure fisheries are better represented in national accounts include: the System for Environmental and Economics Accounting framework⁴¹ and the Ocean Accounts Partnership, which aims to expand the framework to include small-scale fisheries⁴² and wider marine ecosystem services.

Quantifying impacts across the economy: Tools include input-output models⁴³ that integrate natural capital accounting to model multiplier effects in the economy (for example, for fisheries or waste management), general equilibrium models or value chain models to predict impacts on specific industries or sectors.⁴⁴

Monitoring policy targeting: Policy targeting helps allocate limited resources to selected population groups to obtain the best possible impact. It can also reflect prevailing political interests that decide who gets what, when and how.⁴⁵ A policy's accuracy is often measure in terms of number of people who are correctly or incorrectly included as beneficiaries. For example, a post-reform compensation policy will look at the number (or proportion) of poor fishers who are receiving compensation (correct targeting) in relation to the number of poor fishers who are not receiving compensation (exclusion error) or fishers who are receiving compensation but are not poor (inclusion error) (see **Figure 10**).

Common exclusion or inclusion factors include systematic marginalisation, institutional failures or unintentional errors. Evaluating these can help identify potential barriers that exclude poor fishers from compensation after reform and reduce the number of better-off communities or households who are not supposed to be included but keep receiving benefits. Understanding such errors can help decision makers design strategies to improve correct targeting – for example, providing better information, reducing transaction costs or changing the compensation vehicle. Decision makers can draw useful lessons from the experiences of social protection, food security and financial inclusion programmes,^{45,46} as well as monitoring, evaluation and learning systems,⁴⁷ to inform fiscal fisheries reform.

Figure 10. Inclusion and exclusion errors in targeting



Source: Author's own

6. Changing narratives to speed reform

Understanding the types of subsidy and charge, the reasons for their introduction, their efficacy and their potential negative impacts – such as overcapacity leading to overfishing – are important steps towards fiscal reform in fisheries and more effective use of public funds.

People tend to disagree with introducing higher charges for otherwise free resources and ecosystem services. But when governments struggle to ‘make ends meet’, it is important to examine strategies to improve efficiency in public resource collection and allocation. Ideally, governments should take steps to improve pricing systems so they reflect the availability and scarcity of resources, rather than base them on revenue collection or allocation needs.⁴⁸

Effective and equitable subsidy and tax reform should aim to be:⁵

- **Targeted** to specific social groups – for example, large-scale/small-scale; pelagic fish for fishmeal/tilapia for food; inland/marine; men/women; harvesting/processing
- **Feasible** in terms of administrative capacities, and
- **Transparent** in terms of winners and losers, which will help identify strategies for adaptation and compensation.

Information and dialogue are important to ensure that taxes are progressive – in other words, that they target those with more ability to pay – and do not reduce business competitiveness, especially for small- and medium-sized enterprises with less ability to respond.

Table 4 summarises the arguments for speeding fiscal reform in fisheries that we explored in the previous sections.

Table 4. Key arguments for speeding fisheries fiscal reform

Subsidies	Taxes and charges
Most subsidies contribute to overcapacity and overfishing. In 2015, 93% of fisheries were fully fished, overfished, depleted or recovering from overfishing. ²	Taxes and charges send important messages to reduce waste. Governments should use these in combination with other instruments to increase effectiveness.
Large-scale players capture most subsidies.	Taxes and charges are important sources for new and additional revenues.
Eliminating some subsidies can free up resources to re-invest in the sector (revenue recycling). While most of the subsidies go to large fleets, subsidies for artisanal and small-scale fisheries also contribute to overfishing (see Box 7).	It is good to focus initially on high-value species and those with ability to pay (industrial fisheries). Artisanal fisheries tend to operate in informal markets where taxes may be more difficult to implement. They also contribute to overfishing but need different enforcement approaches and systems for effective management.
Targeted subsidies are more cost effective.	It is important to review systems to improve collection mechanisms and reduce tax evasion.
Gender-directed subsidies can really improve women's livelihoods.	Introducing parallel measures can target disadvantaged groups directly. These include social protection, conditional subsidies (such as direct income supplements), payments for ecosystem services and direct regulation – for example, requiring a percentage of women in jobs and creating on-site facilities for women's health and safety.

The environmental argument

Drastically reducing overfishing will help stocks recover

Overgenerous subsidies worth billions every year have led to overcapacity of the fisheries industry and overfishing beyond the natural regeneration capacity of the stock. Immediate action could generate economic benefits of up to US\$86 billion per year following stock recovery, better sizes and better-quality species.⁴

Equity and effectiveness arguments

Most subsidies are captured by large players

Recent studies show that the majority of subsidies are captured by commercial, large-scale enterprises (see **Box 4**).⁴⁹ Globally, 43% of subsidies are located in Asia (mostly Japan and China), Europe (25%) and North America (16%), with only a very small proportion in South and Central America, the Caribbean and Africa.²⁰

The answer to inequitable and unsustainable fisheries is not to increase subsidies in Latin America or Africa, but to engage as a common front to compel developed countries to reduce their capacity-enhancing policies. Introducing change where powerful players dominate resource assignments requires political mobilisation, with support and capacity to less-organised groups to articulate the needs for rebalancing inclusive actions.

Subsidies must explicitly acknowledge and include vulnerable groups

Subsidy design must consider the characteristics of targeted social groups to ensure they treat vulnerable groups more inclusively and equitably.⁵⁰ In fisheries, this needs to be expanded to consider: different stages along the value chain (harvest, pre-harvest and post-harvest); the type of industry (small-scale, semi-industrial or industrial); and the market structure in which they operate (monopoly, informal or formal). Explicit strategies include:

- Designing progressive fees and charges that target those with a higher ability to pay, such as semi-industrial and industrial fleets, rather than subsistence fishers, and
- Targeted action through direct support – for example, improving infrastructure and roads to streamline the value chains and reduce spoilage from inefficiencies, investment programmes directed primarily to women, direct compensation like payments for ecosystem services or social protection and conditional income support for coastal fishing communities.

Fiscal arguments

Improving revenue collection and management can help fund services and social protection

As we discussed in **Sections 3 and 4**, fiscal reform can help the fisheries sector improve revenue collection and management to fund public services and social protection for fisheries. Options include:

- Reducing or eliminating large outlays of subsidies, many of which result in overcapacity and overfishing
- Revising existing charges and licences to increase revenues and correct market failure in public or common access goods, and
- Improving collection efficiency to reduce tax evasion, arrears and corruption.

Revenue recycling can free up resources to re-invest in positive actions. Eliminating capacity-enhancing subsidies can free up resources to support sustainable activities. For example, ‘fishing for plastic’ is a newly evolving industry that deploys small-scale fishers to clean marine habitats in exchange for compensations (see **Box 10**).

Revenue recycling can play a significant role in shifting opposition to reform. It requires better understanding of the impacts of the subsidy change among beneficiaries and the magnitude of losses and gains. It also requires high levels of transparency to increase government credibility, especially if the country is going through a period of economic crisis or deceleration.

Box 10. Promoting new opportunities in the fishing sector

In Kerala, a small government programme pays for plastic entangled in trawlers’ nets.⁵¹ Fishers bring the plastic to the harbour, where it is shredded and turned into material for road surfacing. The government-built recycling plant is managed by women, providing them with new jobs. Since August 2017, the project has collected about 65 metric tonnes.

Implementing the programme required the co-operation of multiple agencies, including the trawlers collecting the plastic, India’s department of civil engineers, who built the recycling facility and the department for women’s empowerment, which helped establish an all-female crew to operate the recycling facility.

Proceeds from the plant are complemented with a government grant to cover the women’s salaries (about 350 rupees or US\$5 a day).

The European Union introduced a proposal to pay fishers to catch plastic, rather than fish, in 2011. Although it has not been implemented, the EU has also announced a series of measures to reduce the influx of plastic into the oceans – for example, banning single use plastics. It also introduced regulation for member countries to collect at least 50% of lost fishing gear each year and recycle 15% of it by 2025.⁵² Fishing for Litter Scotland is an innovative project involving 18 harbours that provide free landing facilities for marine litter. It has collected over 1,300 tonnes of litter since 2005, 88% of them plastic.⁵³

7. Summary and recommendations

Fisheries reform requires drastic action to help revert the alarming situation of fisheries worldwide. But for a reform to be politically viable, it is important to prepare the ground and improve transparency around subsidies and charges: Who benefits? Who is harmed? And who is left out? The take away messages from this review towards a fairer fiscal reform for fisheries are:

1. Eliminate capacity-enhancing subsidies to help recover fish stocks

Governments must reduce capacity-enhancing subsidies that speed the destruction of marine habitats and diversity and harvest fish stocks beyond their natural capacity. This will require strong commitments to move away from a short-term, short-sighted approach to natural resource use (the 'more is better' paradigm) towards a more sustainable development model.

2. Break away from the old by tackling entrenched subsidies and archaic fee collection

In theory, subsidies should be temporary and support transition stages. In practice, once subsidies or exceptions are instituted, it is politically difficult to remove them and introduce prices to resources that are otherwise considered 'free'. New data can provide some of the arguments to help governments transition away from inaction. Improving the collection capacity, transparency and credibility in institutions implementing reform can also help.

3. Remember there will be winners and losers

Fiscal reform can help reduce poverty, but this is not automatic. Social costs are a common argument against removing fishing subsidies or moratoria. This includes direct costs for poorer groups, such as harvesting crews, who would lose jobs and indirect costs for input suppliers, retailers and consumers. But studies show that the lion's share of subsidies is appropriated by large industrial fleets rather than small-scale or artisanal fishers.^{3,54} Removing these subsidies will not directly affect poorer groups, but rather free up resources that can be relocated to direct compensatory actions for vulnerable groups. For this step to work, it will be important to carefully identify winners and losers ahead of reform and explicitly build compensation measures to help transition.³⁷

Box 11 presents suggestions for accelerating change in fiscal reform, following experience in other sectors.

Box 11. Recommendations for accelerating change

Getting political traction for fiscal reform requires a careful understanding of the context and abilities of each country, institution and government involved. Experience suggests a need to focus on:^{55,21}

- Countries' level of development and resource endowments
- The context and political window of reform – for example, linking reform to poverty reduction strategies; an economic crisis that prompts a review of government revenues and expenditures; or linking nationally determined contributions to oceans and coastal ecosystems
- Institutional capacity for effective management of reform, and
- Government potential for driving an inclusive political process.

Further reading

Several networks offer additional resources to help practitioners speed up change, including:

Green Fiscal Policy Network: www.greenfiscalspolicy.org

Green Growth Knowledge Platform: www.greengrowthknowledge.org

Biodiversity and Finance Initiative (BIOFIN): www.biodiversityfinance.net

UN Environment Fiscal Policy: <https://tinyurl.com/unenvironment-fiscalspolicy>

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Fisheries reform requires drastic action to help revert the alarming situation of fisheries worldwide. But for a reform to be politically viable, it is important to prepare the ground and improve transparency around subsidies and charges: Who benefits? Who is harmed? And who is left out?

This toolkit focuses on fiscal fisheries management instruments, which governments use to influence economic decisions on government spending and raise revenue through taxation. They include taxes, charges and royalties – which governments use to discourage actions – and direct subsidies or tax breaks, which they use to encourage decisions linked to investments and consumption. When combined with regulations, fiscal instruments can play an important role in promoting inclusive environmental policy.



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