



Subsidy reform and distributive justice in fisheries

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While most fisheries are already overexploited, many governments allocate capacity-enhancing subsidies to the fishing sector, encouraging further overfishing. Target 14.6 of Sustainable Development Goal 14 and WTO negotiations to eliminate harmful subsidies both call for action on reform. Although the impacts of subsidies on fishing stocks are relatively well understood, their impacts on distribution and equity are less so. This paper analyses and discusses options for addressing equity concerns in fisheries subsidy reform and calls for governments to consider the impacts of subsidies and subsidy reform on vulnerable social groups.

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Executive summary

Environmental and trade benefits are the main drivers behind WTO negotiations on fisheries subsidy reform. But reforms will also have social costs and benefits, so decision makers must carefully assess and consider their impact on people and communities. This paper analyses and discusses equity and fairness in fisheries subsidy reform, identifies barriers to reform and suggests ways of overcoming them to achieve better social and environmental outcomes.

Why do subsidies need reform?

With most fish stocks now exploited above or at maximum sustainable yield, overexploitation has become a serious problem worldwide. The global fishing fleet is around twice the size it should be to exploit current fish stocks and the lack of efficient management systems creates an incentive to catch as many fish as possible.

More than half of all global subsidies are harmful. Those that reduce fleet costs or expand fleet revenues increase activity levels, put pressure on stocks and distort trade, impacting on the environment and communities. Only one-third of fisheries subsidies are beneficial; the remainder have ambiguous or unclear impact.

Distributive justice and equity

Eliminating or reforming subsidies might impact social groups such as women or youth differently. Considering the winners and losers of reform can help us identify which subsidies need to be removed or reformed to ensure they are economically and environmentally sustainable, fair and just and that they leave nobody behind.

Effective and equitable reform

Removing certain subsidies could benefit fish stocks and social equity at the same time, but this will not always be the case. This does not mean that environmentally harmful subsidies should not be eliminated or reformed out of fear of their social effects. But any analysis must include distributive impacts and make potential trade-offs explicit to help those designing reforms decide whether to implement compensatory or complementary measures to mitigate any harm.

To understand why subsidies are so widely used and why people resist reform, even when it would benefit the environment and people, we need to consider the political, economic, social and environmental motivations behind subsidies. We must also consider the barriers to reform which, although usually complex and case-specific, tend to be the result of political reluctance or power structures, social opposition or uncertainty and inertia.

Policymakers have various options for reform. They would probably meet strong opposition to eliminating subsidies altogether, as the prospect of high short-term losses at sector and community levels would outweigh any long-term gains. Instead, they could consider:

- Decoupling subsidies from fishing effort so payments support community incomes regardless of effort
- Reorienting subsidies towards management, enforcement or research to improve sustainability
- Conditioning subsidies by establishing payments to fishers to induce sustainable fisheries, and
- Buy-back schemes to compensate fishers and fishery owners who scratch boats or leave the sector.

Although the type of reform governments pursue will depend on context, political feasibility and social preferences, the following elements will help ensure their success:

- Stakeholder involvement and social support to ensure political acceptability
- Strong political commitment, as reform can take time and involve many interest groups
- Effective, transparent communications that give clear information, to raise awareness of benefits and encourage political support for reform
- Compensation and complementary policies that secure livelihoods or offer alternative benefits to help secure public support for reform
- Careful planning – in terms of design, framing and timing – to ensure reform is gradual, credible and transparent, and
- Aligning institutional and technical capacities with requirements for reform to ensure they can deliver alternative policies or new transfer mechanisms, such as compensation packages or complementary policies.

Conclusion

Fisheries economics and decision making have not traditionally considered the distributional effects of reform, focusing instead on how to maximise income while ensuring stock and sector sustainability. But the concept of distributive justice or allocating resources among the different members of a society has long been a concern among philosophers, social scientists, societies and individuals. Decision makers in the fisheries sector must identify the benefits and burdens of reform on society's most vulnerable groups and incorporate efficiency and equity considerations into any subsidy analysis or policy design to protect communities and livelihoods and increase public support for reform.

1

Introduction

Negotiations are under way at the World Trade Organization (WTO) to prohibit harmful subsidies or economic incentives that contribute to overfishing and overcapacity. Reaching a multilateral agreement by the end of 2019 will be on the agenda at the next ministerial conference (WTO 2017). The United Nations Sustainable Development Goals (SDGs) have pressed for new rules on fisheries subsidies. Target 14.6 of SDG14 calls for prohibiting fisheries subsidies that are linked to overfishing and overcapacity and eliminating subsidies to illegal, unreported and unregulated fishing by 2020.

The challenge is agreeing on the coverage and design of reform. Questions that need answering include:

- Which type of subsidies should be prohibited?
- Which criteria should they be based on?
- Is it appropriate to introduce exemptions for small-scale fleets and Least-Developed Countries?

There are two main drivers behind the WTO negotiations for eliminating harmful fishing subsidies: the positive impacts on international trade and the environmental benefits of reducing overfishing. But the negotiations must also consider socioeconomic factors, such as how subsidies (or eliminating them) affect the wellbeing of communities and individuals. In high-income countries, removing certain types of subsidy may impact some groups more than others. For most, national social protection structures, alternative job opportunities or compensation packages will mitigate any losses. But those structures are often not in place in low-income countries. And if they are, they may not be strong enough to mitigate negative impacts on livelihoods.

The negotiations must therefore effectively consider different impacts – between developed and developing countries and within developing countries themselves – in all discussions, including those on the appropriateness and impacts of subsidies and around exemptions for certain countries or fleet sectors.

This working paper analyses and discusses equity and fairness in fisheries subsidy reform. It departs from the current narrative that defines beneficial and harmful subsidies by their impact on fish stocks, proposing to include distributional and social concerns when deciding on the appropriateness and design of subsidies. It also identifies the main barriers to reform and suggests some ways of overcoming them to achieve better social and environmental outcomes.

We start in Section 2 with an overview of fisheries subsidies and why they need reform. In Section 3, we discuss distributional justice and equity in the context of fisheries and go on to suggest extending the concept of good vs bad subsidies to include equity concerns in Section 4. We present the political economy of subsidies in terms of motivations and barriers to reform in Section 5. Section 6 summarises the main elements for a successful subsidy reform, including institutional capacity enablers. Section 7 offers our conclusions.

2

Fisheries subsidies

2.1 Types of subsidy

Governments around the world have used different types of subsidy to support the fisheries sector and improve the industry's economic viability. Many are environmentally harmful, contributing to overfishing and/or the destruction of aquatic habitats (see Section 2.4).

There is no agreed definition of a fishing subsidy and what types of governmental support should be classified as subsidy. Definitions range from "government actions or inactions that are specific to the fisheries industry and that modify – by increasing or decreasing – the potential profits by the industry in the short-, medium- or long-term" (Westlund 2004) to the narrower "financial transfers, direct or indirect, from public entities to the fishing sector, which help the sector make more profit than it would otherwise" (Sumaila et al. 2010).

Subsidies in fisheries can be allocated to services, production, social assistance or resource access (Porras 2019) and classified as:

- Direct payments, including price support, grants, buy-back programmes and income compensation, which increase fishers' income and are paid directly to them
- Cost-reducing subsidies, including fuel tax exemptions, subsidised loans and tax deductions, which reduce input costs for the fleet, and
- General services, including investments in management, research and infrastructure, which reduce capital and operating costs via indirect transfers to the fishing industry (OECD 2000).

2.2 Subsidies and the fisheries value chain

There is a tendency to put all fisheries subsidies into one category. But although we know relatively more about how much subsidy is provided to the fisheries sector, we know little about who is receiving what form and level of subsidy. So, we need to deconstruct fisheries subsidies and enhance our understanding of how they are used and who they benefit or harm.

Most subsidies and other fiscal instruments target the production side of the fish value chain, rather than the pre- or post-harvest stages. But they still impact activity or behaviour across the whole chain. Understanding the impacts of different subsidies across the value chain is fundamental to our ability to understand the fiscal system, identify the actors involved and affected by reform and work out an intervention's multiplying effects.

Many subsidies have supported modernising and industrialising fisheries, which has had unequal impacts across fisheries sectors and the fish value chain. For example, introducing technology and mechanisation in fish processing, a sector that has traditionally employed women, has led to job losses and small-scale processing plants being replaced with large-scale industrial processing plants for exports (Neis et al. 2005 and 2013; Swartz 2013; Harper et al. 2017).

Figure 1 Fisheries value chain by production stage, subsidy and key stakeholders

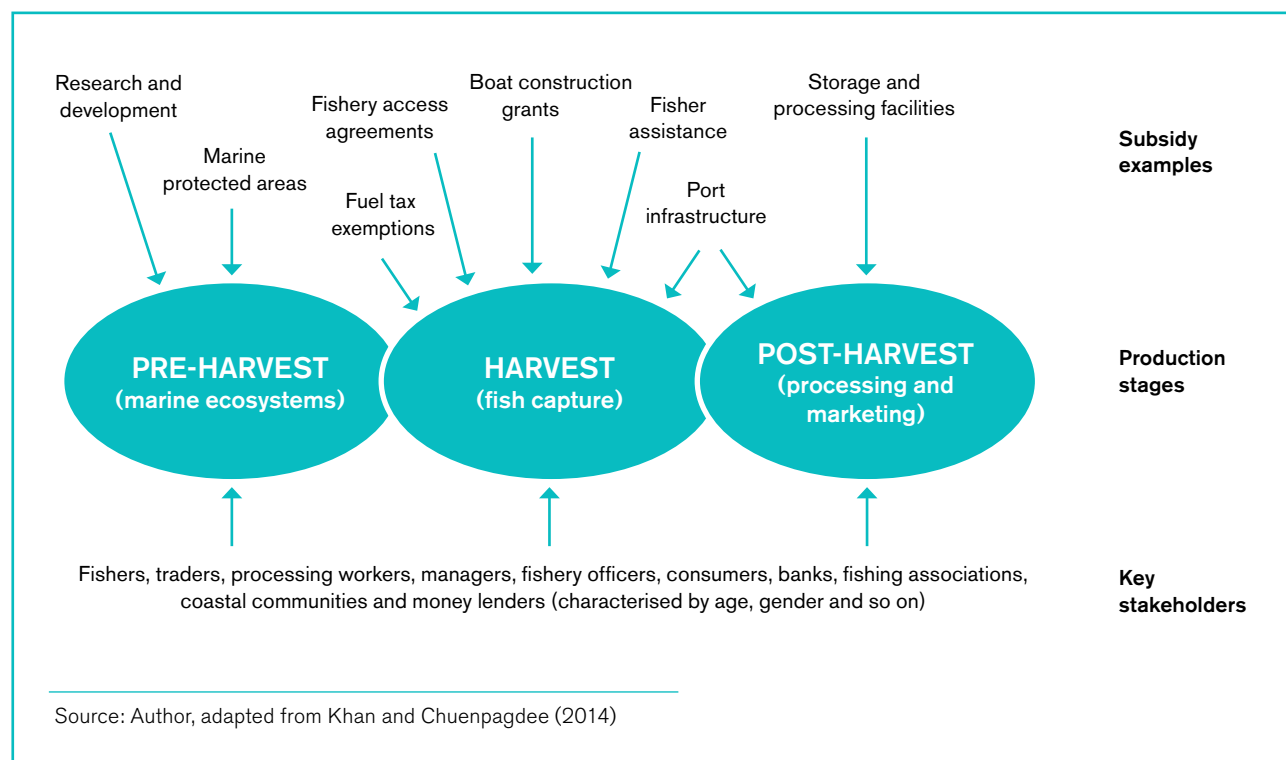


Figure 1 shows how we can divide the fish value chain in three production stages (Khan and Chuenpagdee 2014). Pre-harvest refers to the marine ecosystems, so subsidies in this stage include those allocated to resource conservation and management, such as fisheries research and development and those for establishing and enforcing marine protected areas. Harvest refers to the fish capture stage, when subsidies include fuel tax exemptions, grants for building boats, port infrastructure or fisher assistance. Post-harvest subsidies – which cover processing and marketing – can include grants for storage or processing facilities.

The actors involved in each stage – and the characteristics of the social groups participating in them – vary. For example, women are much more likely to be involved in processing and marketing than harvesting. Groups involved in the harvest stage tend to benefit most from subsidies (European Commission 2016, Sumaila et al. 2016). The distribution of power – for example, whether fishers operate under competition or have a monopoly – and political motivations, such as the existence of lobbying groups (see Section 5), can also influence who benefits from subsidies.

2.3 Good and bad subsidies

Fisheries economy and policy experts tend to judge subsidies on their impacts on resource management and sustainability, equity and distribution (Munro and Sumaila 2002). Although some subsidies can have undesirable results, others can have a neutral or positive effect (Schrank 2001, Sumaila et al. 2010). The lack of agreement around defining a subsidy and the lack of transparent government reporting makes it difficult to identify and measure fisheries subsidies. But one study estimates global subsidies at US\$35 billion, around 30–35% of the value of total catches and finds that harmful or capacity-enhancing subsidies account for more than half of these. Beneficial subsidies account for one-third; the rest are ambiguous or unclear in their impact (Sumaila et al. 2016).

What makes a subsidy good or bad? One view is that the beneficial or harmful nature of subsidies depends on their fishing capacity-enhancing potential. So, for example, fuel exemptions are harmful because they encourage increased fishing capacity or activity, reducing the sustainability of fish stocks (Sumaila et al. 2010). The natural capital approach (Munro and Sumaila 2002) views fishery as a natural capital asset

that can provide economic benefits to society over time, subject to investment or disinvestment. Following this approach, we would view a subsidy that encourages disinvestment in the resource (overfishing) as harmful and one that incentivises natural capital investment (to reduce fishing activity and therefore rebuild stock) as beneficial.¹

So, we can say that a subsidy is beneficial if it supports a positive externality such as improving stock sustainability or social welfare (see Squires et al. 2014). Following this logic, subsidies to fisheries management (monitoring, enforcement, stock assessment and so on), fisheries research and development and marine protected areas are generally classified as good or beneficial for the sustainability of the resource.

In a context of declining fish stocks and far from efficient management systems,² we would define as harmful grants for modernising vessels or fuel tax exemptions that encourage increased capacity or activity, adding pressure on stocks (see Porter 2014, Sumaila et al. 2010).

Subsidies that distort competition are also harmful. At international level, outside of exclusive economic zones (EEZs) and in the absence of adequate regulatory regimes in areas beyond national jurisdiction, fish stocks are generally considered a common good. If some countries provide subsidies to promote fishing in these areas, it can distort access to the resource and trade in the product. Developed countries provide more subsidies to their national fleets than developing countries (65% vs 35%), mostly through fuel tax exemption (Sumaila et al. 2016). As this reduces operating costs for the fleet, eliminating such subsidies would probably reduce distance-fleet profitability (Sala et al. 2018), giving subsidising countries a non-competitive advantage. Having better access to resources outside EEZs and developing countries' national stocks³ makes them the main contributors to overfishing in distant waters and even in other countries' coastal waters (through fishing agreements or as a consequence of poor control and enforcement). This has repercussions for small-scale or coastal fleets from less-subsidising countries, who have to assume the costs of an overfished stock and the negative effect this has on income generation or food security.

Fishing subsidies can also introduce international seafood price distortions. Market prices are set

by supply and demand. By reducing costs for the beneficiary fleets, subsidies increase activity and fish supply and therefore reduce prices (assuming constant demand). Lower prices tend to be detrimental for net exporters, which are generally developing countries. In the long term, if overexploitation of stock continues, fish supplies would decrease, leading to market price increases due to scarcity. But because developing countries face difficulties in accessing international stocks, they would not benefit from that extreme situation.

There is agreement in both the literature and the political arena that some subsidies harm fish stock sustainability and can distort competition in international markets. So, they need reform. But the current narrative fails to consider that eliminating or reforming any subsidy might impact different social groups – such as women or youth – differently, just as existing subsidy schemes do (see, for example, Schuhbauer et al. 2017).

Fiscal reforms offer an opportunity to resolve this equity challenge. We need to identify the winners and losers of reform to ensure it is economically and environmentally sustainable but also fair and just and that it leaves nobody behind.

2.4 Why reform subsidies? The problem with overfishing

The overexploitation of worldwide fisheries has become a serious problem in the last decades. Most fish stocks are exploited above or at the maximum sustainable yield and a third are overfished (FAO 2018). There are two sides to this problem: biological overfishing, which leads to lower harvest levels and stock depletion and overcapacity in fishing fleets, or excessive and inefficient investment in fishing capacity in terms of the number and power of vessels. The global fishing fleet is around twice the size it should be to exploit current fish stocks (World Bank Group and FAO 2009).

Governance plays a key role in sustainable fishery stock management, regulating, monitoring and enforcing or incentivising fishers to manage their own catch (see, for example, Lubchenco et al. 2016). However, fishery resources are generally exploited under individual

¹ But a subsidy reform that can lead to decreases in activity and so improved stocks does not guarantee that overexploitation will not reoccur in the midterm, unless effective management mechanisms are put in place.

² The impact of subsidies in efficiently managed fisheries remains unclear and can range from 'limited' (Merayo et al. 2018) to 'still significant' (Munro and Sumaila 2002). But most fisheries are not managed efficiently, so the impact of subsidies is generally significant.

³ Some studies have argued that developing countries should introduce subsidies to fight this disadvantage in access to resources (for example, Kurien 2007). But, given the declining state of their stocks, they must take care to invest in good rather than harmful subsidies.

competition conditions. When there are no efficient management systems, nobody is excluded from exploiting the resource and the amount each person catches affects other participants' potential catch. This common-pool nature of fisheries creates a perverse incentive to catch as many fish as possible, leading to overinvestment and overfishing – the tragedy of the commons (Hardin 1968)⁴ – negatively affecting fish stock sustainability (see, for example, Gordon 1954).

Overcapacity is also closely linked to the special character of capital and labour in fisheries (see, for example, Rust et al. 2016 for a modelling exercise that addresses this relation). Boats, gears, other equipment and fisher work skills cannot be easily transferred and used in other activities, so reallocating these production factors to other economic sectors might be costly and take time (Clark et al. 1979). The industrialisation of fisheries and increasing demand for fish and fish products made the overexploitation of fishery resources a considerable problem in the last century (see Box 1). Climate change and land-based polluting activities have also significantly affected the sustainability of marine life and fish stocks and by extension, the communities that depend on them for a living.

Although experts recognise fisheries management as the most important factor in overcoming overfishing and overcapacity problems, the common-pool nature of fisheries and lack of efficient management systems are not the only factors responsible for fleet overcapacity and overfishing. Subsidies that reduce fleet costs or increase their revenues can also impact activity levels and behaviour in the fishing sector, even in the presence of efficient management systems (Munro and Sumaila 2002).

Figure 2 shows how fishing effort naturally increases until total revenue (related to the size of the stock) equals total costs at equilibrium point E1. Introducing a subsidy artificially reduces total costs (from TC1 to TC2), leading to a new equilibrium with higher effort (E2) towards harvest. Overfishing takes place when effort is excessive in relation to fish stock. Capacity-enhancing subsidies can increase pressure on stocks and distort trade, while increased activity levels also have environmental and social impacts, derived from declining stocks.

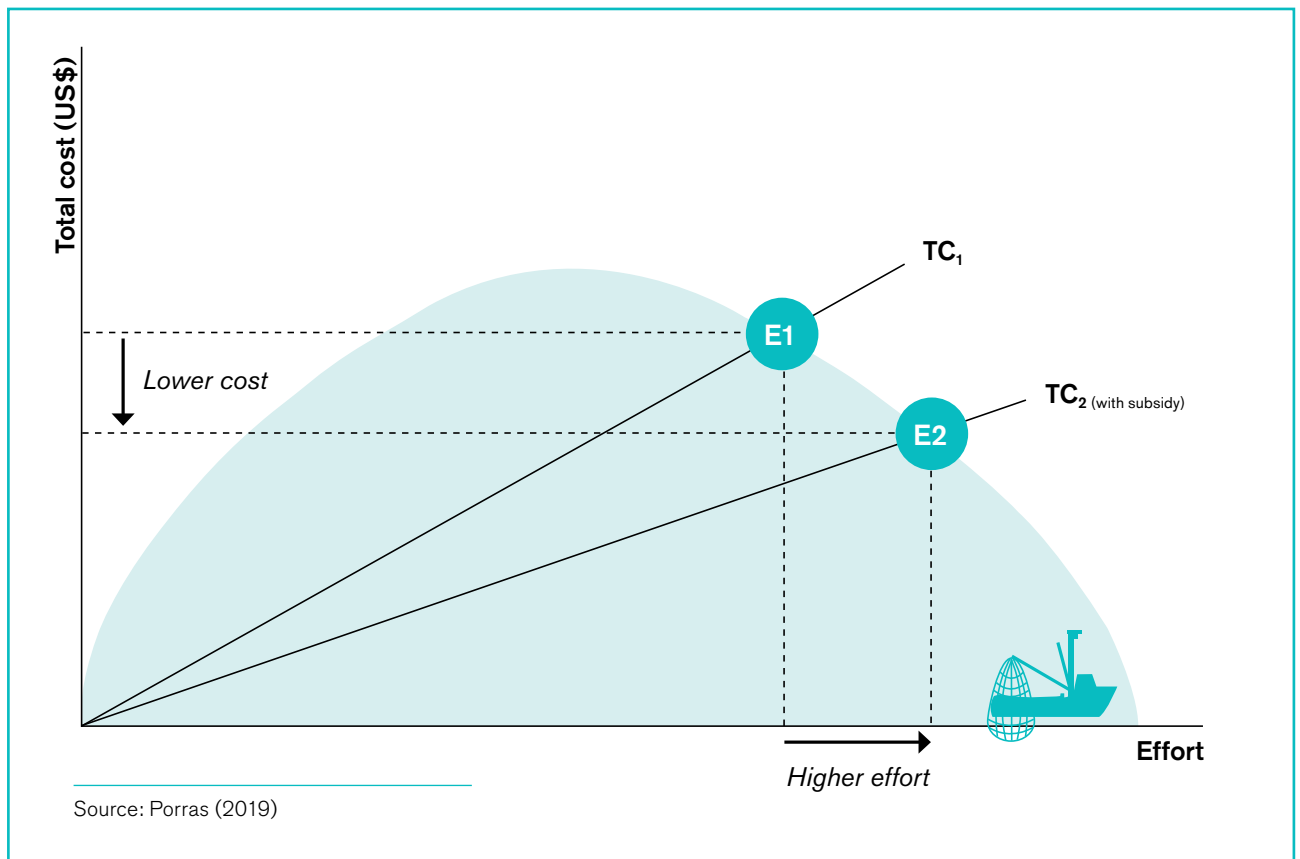
BOX 1. OVERFISHING: PERUVIAN ANCHOVIES (1972–3) AND ATLANTIC COD (1992)

Before 1972, Peru managed its anchovy fishery through annual quotas allocated according to vessel capacity, which encouraged overcapacity. In 1972, overfishing and an El Niño event greatly depleted the country's anchovy stock. Its fishery collapsed and catch levels plummeted from 12.5 million tonnes in 1971 to 2.5 million tonnes. Consequent price increases for fish and substitute products damaged the national economy. The collapse had environmental and social impacts, especially in local communities that were highly dependent on fishery for their survival.

In the early 1990s, 20% of the population of Canadian provinces Newfoundland and Labrador worked in fisheries and more than 25,000 families depended on processing for their livelihood. Following a significant decline in Northern Atlantic cod stocks in 1992, the government imposed a two-year fishing moratorium. Although it reopened the cod stocks a few years later, they have not recovered. Local vulnerable communities were adversely impacted by the closure and the government had to provide income support for fishers and processing workers, as well as encourage alternative income-generating activities.

⁴The tragedy of the commons in fisheries describes the dilemma fishers face when no efficient management or cooperative mechanisms are in place: they know that limiting their catches will result in sustainable future catches, but they cannot be sure that the catch they sacrifice will not be shortly reaped by competing fishers. This leads to a race-to-fish that often results in overfishing and resource depletion.

Figure 2 A simple bioeconomic fisheries model, based on Gordon (1954)



3

Distributive justice in fisheries subsidy reform

As we saw in Section 2, different subsidies can have different impacts on stakeholders across the value chain that can vary according to sector or individual characteristics such as gender or age. Subsidy reform will also have implications for distribution and equity. Considering who might be the winners and losers of reform can help us identify which subsidies need to be removed or reformed, based on their environmental and social impacts. This section provides a brief overview of the concept of distributive justice and equity and how it relates to the fishery context.

3.1 Distributive justice: a matter of social preferences

Distributive justice can be defined as the fair, equitable and just distribution of benefits and burdens in society. These can include income, wealth, political power, education, healthcare or community involvement. Although the concept of distributive justice has been important and influential in philosophy and social sciences for centuries (see, for example, Olsaretti 2018), there is no single definition on what a fair, equitable or just distribution means (see Box 2). Because fairness and equity⁵ are subjective

assessments based on morals and ethics, they are open to different interpretations.

It is important to note that different situations might need different distributional concepts. For example, a study analysing different management regimes in Norwegian fisheries based on their apparent concern for equity and efficiency found that although some form of equalisation of agents – or egalitarianism – was usually present, allocation differed depending on the specific justice concept applied (Elster 1992). All notions of justice incorporate some egalitarian view, either in terms of equal weight of agents (utilitarianism), equal liberties (libertarianism) or equal rights to basic goods (Sen 1992, Rawls 1971). There are generally three views on how resources should be allocated: on merit or effort, on entitlement or rights or on need (Hodgson 2010).

One definition of distributive justice is when moral preferences are placed above the distribution of resources in society. Because these preferences are reflected in the behaviour of public and private decision makers, important policy implications need to be addressed (Johansson-Sterman and Kunow 2010). But alternative local perceptions of what is fair can alter the legitimacy of a society's resource allocation and by extension, the efficiency and equity effects of these decisions (Pascual et al. 2010).

⁵We use 'fairness' and 'equity' interchangeably across the text.

BOX 2. MAIN NORMATIVE THEORIES ON DISTRIBUTIVE JUSTICE

- **Utilitarianism:** A theory of human welfare that focuses on maximising aggregated individual utilities or happiness.
- **Libertarianism:** Just outcomes are defined by separate just actions of individuals, when everyone is entitled to the holdings they possess. A distributive pattern is not required for justice.
- **Egalitarianism:** Every person should face the same level of benefits and costs and have the same level of goods and burdens.
- **Equality of opportunity:** Recognising that access to resources is shaped by social, natural and fortuitous factors, this theory, based on the principles of utility (efficiency) and justice, prioritises justice in case of conflict (Rawls 1971).
- **Capacity approach:** With similar access to resources and opportunities, individual abilities and preferences would lead to different outcomes. As a result, less advantaged groups should have greater access to public goods and services (Sen 1979).

Source: Author's own summary

Fairness is a social construct, based on what a society considers to be fair, equitable or just. Ideas around fairness are significantly shaped by social beliefs on the origin of wealth – for example, whether it is perceived to be a product of effort, luck, connections or corruption. Such beliefs differ between individuals, groups or countries, which influences redistributive policies (Alesina et al. 2009), creating multiple criteria for evaluating fairness.

One option is to base distribution on accountability, efficiency, need and equality (Johansson-Sterman and Kunow 2010). **Accountability** refers to both proportion and responsibility: allocation should be according to people's contributions related to variables they have control over. **Efficiency**, understood as the maximisation of total surplus, is also relevant, though there may sometimes be trade-offs between efficiency and equity. Distribution should also satisfy the **basic needs** of all individuals. Finally, **equality** is important. But what should be made equal? The impartial (or spectator) view would generally favour equal contributions (according to accountability), while the more subjective stakeholders' view generally favours equal earnings.

These four rules or principles for evaluating fairness are not easy to apply as there is a lack of agreement on the relative weight we should give each one. The preponderance of one rule over another and decisions around which people or variables to include when evaluating fairness of policy allocations should be context-specific and remain open for debate.

3.2 Equity and fisheries subsidies

Generally, fisheries economics literature focuses on efficiency: how to maximise resource rents over time and ensure the biological and economic sustainability of both stocks and the fishing sector. It pays very little attention to the winners and losers of any management intervention, often treating fishers as production factors rather than people embedded in a complex social and cultural environment (Bromley 1977) and ignoring the importance of ensuring the livelihoods of local vulnerable communities. As a result, many policymakers and academic contributors have tended to disregard distributional and equity considerations.

The goal of any fisheries regulation is to change the behaviour of actors involved in the sector, so there will always be winners and losers. Firms and households, with their different characteristics, also have different abilities to adjust to new policies. Their capacity to adapt to varying income sources will largely depend on the existence of – and access to – alternative income earning opportunities in the community. Unintended economic impacts, such as labour or financial market distortions, might also emerge after a subsidy reform and significantly impact vulnerable communities or social groups (see Mohammed et al. 2014).

When analysing a policy's impacts, there is a tendency to distinguish between large and small-scale fisheries (see, for example, Schuhbauer et al. 2017). They are

BOX 3. HOW TO MEASURE EQUITY

There are several methods to quantitatively measure income or wealth distribution in a society and therefore the level of inequality. The first step is having access to socially disaggregated data. National statistical offices usually collect and store general data on income or employment. But, in many cases – particularly in low-income countries where resources are scarce – this data presents a general picture and does not break down income information by group (for example, women) or include the value of informal or subsistence sectors (Porrás et al. 2019). This makes it difficult to assess the impact of policy interventions across the value chain and for different social groups.

Where data is available, there are several methods to quantitatively measure the effects of policy interventions on equity, using:

- The **Lorenz curve and Gini coefficient** to statistically measure the dispersion of the distribution of income or wealth in a given population.
- **Ratios**, such as the 20:20 ratio and the Palma ratio
- **Indexes**, including the Hoover index, entropy index, Theil's statistic or the Atkinson index (see, for example, Cowell 2009).
- The **Gini coefficient** to estimate income and then income inequality before and after introducing a new policy or policy reform, to assess whether the policy or reform improved equality (developed by the Commitment to Equity Institute;⁶ see De la Fuente et al. 2017 for an example of its application in Zambia).

- **EUROMOD** (in European countries) and **SOUTHMOD** (when extended to developing countries): a country-specific microsimulation model that estimates the impacts of benefits and taxes on household income and work incentives, assessing the poverty and inequality effect of any given fiscal policy (developed by the Institute for Social and Economic Research⁷ at the University of Essex, UK).
- **Ex-ante distributional analysis**, which defines the impacts to be analysed, analyses stakeholders and institutions involved and develops a causality framework for evaluation (see Busjeet 2013).

Another approach to assessing equity in the fishery sector measures entitlements (access/utility, wealth) which legitimise the imposition of costs on others, and exposure (lack of access) and then compares these between countries (comparative advantage) or domestically to identify the distributional implications of a policy intervention and estimate aggregated social welfare as a goal of public policy. One study used this approach to measure the effect on different groups of fishers of licences providing access to fishery in extended national jurisdiction areas. Taking the difference between the net present values of access to the fishery and their best alternative as the opportunity costs for society of being denied access to the fishery, the study recommends that fishery models should recognise that individuals have a wide variety of skills and capital equipment in fisheries and a wide disparity of economic opportunity outside of fisheries (Bromley 1977).

certainly two distinct groups in the fisheries sector, but when talking about equity, we need to be less generic and analyse more specific social groups. Looking at impact by size of fleet does not say much about the workers involved,⁸ the communities they support or gender considerations. Even in small-scale fleets, heterogeneous groups of people co-exist and are differently impacted by fisheries policy.

When analysing equity or distributional implications of reform for social groups, we can distinguish between intragenerational and intergenerational equity.

Intragenerational equity includes socioeconomic, spatial (urban vs rural communities, proximity to markets or coastal resources) and demographic factors (gender, ethnicity or age). But because these categories are not mutually exclusive, analysing impacts on social groups or individuals should follow an intersectional approach, combining the individual or group's different characteristics (gender, age or socioeconomic status) and the context they live in to define how they are impacted by fiscal reform.

⁶ <http://commitmenttoequity.org/>

⁷ <https://www.iser.essex.ac.uk/>

⁸ See, for example, Duy and Flaaten (2016), whose analysis of Vietnamese fishery subsidies concludes that they benefit vessel owners rather than crew members.

Intergenerational equity refers to distributive justice between generations, giving every generation an equitable allocation of resources. Approaches to intergenerational equity include the preservationist model, the opulence model or the environmental economics model. The latter is based on the concept of externalities or unintended impacts and the use of discounting to account for preferences for present to future benefits.

Another argument is that, because all generations have an equal place in the natural system, there is no basis for preferring the present generation over future generations in their use of the planet (Brown-Weiss 1992). This approach recommends that we consider three principles when assessing intergenerational equity:

- Conservation of options: maintaining natural and cultural diversity to ensure that, in satisfying its own needs, the current generation does not restrict options available to future generations.
- Conservation of quality: every generation should pass on the natural and cultural resources to the next generation so it can enjoy a comparable natural quality.
- Conservation of access: each generation should ensure equitable rights of access to natural and cultural capital and conserve this access for the next generation.

When we consider the demographic factors that affect intragenerational equity, gender is one of the main emerging areas of political and social interest. Gender-differentiated roles, labour distribution and access shape men and women's participation in fisheries. There is both horizontal and vertical gender segregation – by activity and by roles and responsibilities within the activity.

For example, harvesting fish is the main source of capital and economic activity in fisheries; it is also a source of prestige, assets or decision-making power. In many

cultures, women's low participation in fish harvesting arises from domestic and childcare duties, but it is also due to the danger or physical demands of fishing at sea and the lack of on-board safety. Fishing also often relates to or defines male identity in fishing communities.

While women do not play much of a role in fishing at sea, they make an important contribution to shore-based harvesting and post-harvest activities such as processing, marketing, trade and commerce. But even in activities where women dominate, they are usually not represented in decision-making positions. Their work is often informal, temporary or part-time and they have limited access to social benefits, such as health insurance, holiday entitlement, maternity leave or pensions.

These roles and related power imbalances contribute to the unequal accumulation of economic, social and cultural capital between men and women. So, fiscal reforms such as social benefits to support women should not depend on income or work performance. A defamiliarised approach to social rights – such as social security schemes based on citizenship that would release family responsibilities in education or care – is one way to fight gender inequality (Sainsbury 1999).

But fisheries are not isolated. So, it is vital to not only consider impacts through the whole value chain (from harvesting to processing and beyond) but also with other socioeconomic sectors and at national institutional level. Coordination between government programmes is extremely relevant, so that programmes to address gender inequality are integrated with other sectorial programmes, such as those specifically focused on agriculture or fisheries (Harper et al. 2017).

Public support to fisheries is just one part of the solution. It is usually governments that distribute subsidies – for example, after collecting tax or creating public debt. So, assessing the equity of a subsidy scheme requires us to look not only at who is benefiting and by how much, but also at how we can provide the funds needed to finance the scheme.

4

Effective and equitable reform: moving beyond ‘good vs bad’

Effective and equitable subsidies should be:

- Targeted: the cost-effectiveness of a subsidy might depend on them being allocated to specific social groups. So, a target intervention design must consider beneficiaries' characteristics to ensure the most vulnerable groups are treated equitably.
- Feasible, in relation to institutional, administrative and financial capacities, and
- Transparent, in costs and benefits, beneficiaries and/or potential losers (UNEP 2001).

Any subsidy reform must be carefully designed to account for policy goals, existing barriers, stakeholders, effectiveness and equity. Designers of subsidy reform in the fisheries sector must consider the characteristics of the value chain, in terms of actors involved and multiplier effects. Different actors participate in different stages of the value chain and there is rarely homogeneity even in the same sector – for example, there are differences between small-scale and large-scale fleets. It is important to understand any interlinkages, which will be context-specific.

If optimal management schemes were in place, the forces that drive overfishing would not operate, limiting the potential perverse effect of certain subsidies. But fisheries management is rarely optimal and subsidies can impact the sector and communities through three different but interlinked paths: impact on stocks and the environment; effect on the national and sectorial economy and implications for equity or distribution of resources in society.

How do we measure the desirability of fishery subsidies? One method defines subsidies as harmful if they negatively impact fish stocks and consequently the economy of the fisheries and other related sectors (Sumaila et al. 2010). Another bases the desirability of fishery subsidies on three criteria: environmental sustainability, market effects and policy consistency and effectiveness and efficiency (Salz 2009). But few studies have explored how subsidies affect different social groups – such as women or youth – that participate in the fishery, either at pre-harvest, harvest or post-harvest stage. Table 1 shows how we could assess these implications to define whether a subsidy is good or bad.

Table 1 Good or bad subsidies? Incorporating environmental and social concerns in assessments

SCENARIO	ENVIRONMENTAL IMPACT (Sumaila et al. 2010)	EQUITY IMPACT (potentially, depending on reform design)	GOOD OR BAD OVERALL?
1	Beneficial	Positive	Good
2	Beneficial	Negative	Trade-offs exist between environmental and equity impacts
3	Harmful	Positive	Trade-offs exist between environmental and equity impacts
4	Harmful	Negative	Bad

Source: Author's own and Sumaila et al. (2010).

When a subsidy is harmful in terms of both environmental impact and equity (scenario 4), it should be reformed. Fuel tax exemption subsidies, for example, belong to this category, because they encourage fishing activity and the overexploitation of fishing resources. They also mostly benefit large-scale fleets, to the detriment of small or artisanal fishing fleets, whose activity might have a more significant impact in local communities.

Some subsidies are harmful for the environment but positive for equity or social justice (scenario 3) – for example, vessel or crew insurance programmes that encourage overexploitation but support fishers in cases of temporary difficulty. Others are beneficial for the environment but have a detrimental impact on local communities or women (scenario 2) – for example, establishing marine protected areas that restrict fishing to local communities but try to protect the fishing resources. In such cases, the existence of trade-offs makes it difficult to define them as good or bad. Both scenarios call for more careful assessment, to evaluate these trade-offs and minimise or alleviate their negative impact in the sustainability of both society and environment.

We can define subsidies that benefit fish stocks and vulnerable social groups (scenario 1) as good and justify them in both environmental and equity terms – for example, compensation schemes for no-fishing during fishery closures support resource regeneration and the livelihoods of communities affected by a fishing moratorium.

The scenarios in Table 1 are not exhaustive. For example, some subsidies might benefit the environment but have neutral impacts on equity, or vice versa. We can define these as good. Similarly, we would classify as harmful a subsidy that harms the environment but has no impact on equity or vice versa. When subsidies have no harmful environmental or equity implications, policymakers should decide whether the benefits justify their existence.

When thinking about the appropriateness of subsidy reform, it is fundamental to consider the impacts and trade-offs of any type of subsidy. And because subsidies are public funds (usually taxes) that are allocated to certain sectors or individuals, they need to be justified in political terms – for example, in terms of wider policy goals and integration within national targets such as SDG 5 on gender equity and equality.

5

Preparing for reform: understanding the political economy of subsidies⁹

Although the negative environmental and economic impacts of most fishing subsidies are relatively well known – more than half the world’s subsidies are environmentally harmful (Sumaila et al. 2016) – they are common around the world. To understand why fisheries subsidies are so widely used and why there is such resistance to reform, even when it would benefit the environment and people, it is necessary to consider the motivations behind subsidies and the existing barriers to reform.

5.1 Motivations behind subsidies

The motivation for introducing subsidies is vast and complex, but we can draw a few oft-cited political, economic and social and environmental reasons from literature.

5.1.1 Political motivations

Subsidies can be a convenient way to deliver visible public benefits, so they are often used for political gain. In such cases, a government might target subsidies at the interest groups that have a bigger say in keeping it in power (Inchauste and Victor 2017). At the same time, well-organised interest or lobbying groups can also advocate for subsidies to ensure specific benefits for their sector (Commander 2012, Victor 2009)

5.1.2 Economic motivations

In fisheries, as in agriculture and other primary sectors, production and harvest are highly variable, due to weather conditions or other factors. In some cases, subsidies introduced to overcome temporary difficulties become permanent over time (Commander 2012). Governments also use subsidies to correct market failures or externalities or to stimulate capacity increases in developing industries and encourage investment

⁹Most of the articles cited in this section are based on case studies from the energy sector, specifically on fuel subsidy reforms around the world.

and innovation in the sector (UNEP 2001). They can introduce them as a way of supporting sectorial production that has strategic value for the country or, in export-oriented sectors, to secure a competitive advantage in international trade (Commander 2012).

5.1.3 Social and environmental motivations

Subsidies have often been justified as a way of protecting employment and supporting the income of vulnerable communities who depend on fishing (Commander 2012, UNEP 2001). One such example is designing compensation packages for those affected by fishery closures (see Box 4). Some subsidies – like payments for ecosystem services – aim to encourage environmentally friendly practices (UNEP 2001).

BOX 4. THE BANGLADESH HILSA COMPENSATION SCHEME

Since the 1970s, overfishing and habitat degradation has caused a significant decline in hilsa catches, one of Bangladesh's most iconic fish. In 2003, the national government established hilsa sanctuaries and imposed a complete fishing ban during March, April and peak spawning season to allow the fish to reproduce. To protect the livelihoods of poor fishers dependent on this resource, it also introduced an in-kind compensation scheme and support for engaging in alternative income-generating activities. In 2013, a Darwin Initiative-funded project led by IIED revised the scheme and helped improve the design of the compensating programme to make it more efficient and sustainable. This shows how supporting the livelihoods of local communities while establishing fishery closures can encourage social sustainability and the fishing resources they depend on.

Source: Dewhurst-Richman et al. (2016)

5.2 Barriers to subsidy reform

Subsidies are always easier to introduce than to reform. Although the reasons for resistance to reform are generally complex and case-specific, case studies have identified several barriers to reform, under three overarching classifications: political reluctance and power structures; social opposition; and uncertainty and inertia.

5.2.1 Political reluctance and power structures

When interest groups with political power benefit from a subsidy, they can effectively block any attempt for reform to keep their privileges (Kopits 2008). The more benefits subsidies provide to well-organised interest groups, the harder it is for government to reform, since these groups are unlikely to accept the cost of reform (Inchauste and Victor 2017, IMF 2013). Depending on these groups' political power, this can place significant constraints on policymakers (Whitley and van den Burg 2015). Most subsidies also encourage path dependence and lock-in, so even if the political costs of organising a lobby to obtain a subsidy are high, lobbying and advocating for their reform is often harder (Victor 2009).

When benefits from subsidies are concentrated in a few interest groups and costs are diffused among taxpayers, political mobilisation bias related to political support might make subsidy reform difficult (UNEP 2001). This is related to one of the fundamental basics of political economy studies: that policies are in place to benefit well-organised interests at the expense of the general welfare of less-organised groups (Wilson 1973).

Because benefits are asymmetrically distributed in society, there are asymmetric incentives for policymakers, too (Commander 2012, Whitley and van den Burg 2015). This is further compounded by inconsistencies in the timing of costs and benefits. Subsidy reforms – especially in fisheries – are usually associated with high short-term costs to those benefiting from the subsidy in first place and benefits that only come to fruition in the long term, such as improved stock sustainability.

Other barriers to subsidy reform include a lack of awareness among government or political participants of the harmful impacts some subsidies have on sustainability and their medium and long-term implications. Natural resources such as forests, the marine environment or fish stocks are often seen only as resources to be exploited; people fail to recognise or account for the linkages between current exploitation levels and the sector's future status.

In some cases, fiscal reforms are delayed or blocked because governments do not have the technical and administrative capacity to carry it out. They either lack effective mechanisms to target and transfer compensations, a strategy to integrate subsidy policy in a broader public policy setting or coordination between government departments. When subsidies support a broader sectorial strategy, reform can also become compromised if no alternative measures are developed

and implemented. Weak governance and institutional power can also increase the uncertainty and risk associated with reform, decreasing public acceptance and support (Whitley and van den Burg 2015).

5.2.2 Social opposition

Fiscal reform can also fail because of a lack of information on the magnitude, beneficiaries or negative impacts of the existing subsidy (IMF 2013). This lack of transparency might also have an adverse effect on the reforming political process and support for reform (Whitley and van den Burg 2015). It can also affect public awareness around the appropriateness of reform and by extension, public support.

Dependency on the state for employment or income, supported by the subsidy policy in place, can also encourage resistance to reform (Kopits 2008). Public beliefs around the role of public institutions and fiscal instruments to support economic sectors and livelihoods can also lead to opposition (Commander 2012).

As we see from the Nigerian example below, the lack of government credibility – which is linked to the lack of transparency and information on reform – can cause public opposition to subsidy reform. When the public does not believe in a government's claims of the benefits of reform, they are more likely to oppose it where uncertainty and distrust is high (UNEP 2001, Commander 2012, IMF 2013).

Public opposition to reform can increase when a country is going through a period of economic deceleration or crisis, because the potential costs of reform have more impact on company balance sheets and people's livelihoods at these times (IMF 2013). Conversely, a bad economic and financial situation can also act as a catalyst for policymakers for fiscal reform (Lejour 2016).

5.2.3 Uncertainty and the power of inertia

One of the main obstacles to subsidy reform is aversion to change (Kopits 2008). Uncertainty regarding the winners and losers of reform and concerns over harmful impacts on interest groups, on the poor or a general economic impact might constrain the will for reform (IMF 2013, UNEP 2001). This is also the case when uncertainty extends to the purely political costs or gains of reform.

Because subsidies tend to support certain behaviours and patterns of activity, they might encourage a lack of dynamism, maintaining the production and consumption decisions encouraged by the subsidy (OECD 2007). This inertia can be intensified when the government fears that reform will lead to political instability or unrest.

BOX 5. OPPOSITION TO ENERGY SUBSIDY REFORM IN NIGERIA

In 2012, the Nigerian government introduced a reform of the energy subsidy system. After years of increasing funds allocated to the sector, it had become higher than the education, health and social protection budgets combined. The government tried to alleviate the expected rise in energy prices through compensation payments to public employees and other measures such as vocational training or conditional cash transfers, but social opposition and strikes and protests limited the reform.

Several factors explain this opposition to reform, including the lack of governmental understanding of the social and distributional impacts of reform, a public communication campaign on the benefits of reform and stakeholder involvement in the process. The compensating or mitigating measures were not implemented on time and had limited coverage. The lack of government credibility was also fostered by in-country corruption levels, making it difficult for people to accept reform. In the end, it was only partially implemented.

Source: Commander et al. (2012)

6

Reforming fisheries subsidies to ensure environmental efficiency and equity

Once policymakers have identified a bad subsidy that needs reform, they must consider different options for reform. The literature suggests several options for reform, including eliminating, reorienting or conditioning subsidies, decoupling them from fishing effort and buy-back schemes (Cisneros-Montemayor et al. 2016).

Eliminating subsidies implies removing of all types of subsidy allocated to the fishery sector. Doing so would certainly generate strong opposition due to the likely high short-term losses to the sector and local communities, even if the long-term resource recovery gains would offset the losses.

Decoupling subsidies from fishing effort means reforming them in a way that payments are not linked to fishing effort but still support the income of local communities and poverty alleviation.

Reorienting subsidies towards fishery management, enforcement or research would direct public funding to improve the sustainability of fisheries instead of encouraging overexploitation.

Conditioning subsidies means establishing payments to fishers or fisher communities who depend on certain criteria to operate sustainably.

Buy-back subsidy schemes have been widely used to remove excess capacity from fisheries, by compensating fishery owners for scrapping their boats and leaving the sector. But evidence shows that results are not very promising, with limited removal of capacity and reductions in fishing activity in relation to the costs of the scheme (Clark et al. 2005).

Deciding which type of reform to pursue will depend on context, political feasibility and social preferences. But there are certain key elements policymakers must consider for their subsidy reform to succeed.

6.1 Elements for successful subsidy reform

6.1.1 Stakeholder involvement and social support

Stakeholder and general public involvement are very important for political acceptability of reform (Commander 2012, Lejour 2016). Stakeholders and the public must be engaged in designing and implementing fiscal reform for it to reflect social distribution and equity preferences. The perception of a policy's equitable outcomes is country-specific, so we cannot assume that the most equitable option is always the one that will bring consensus around reform. Ideally, the losers should be ready to accept some loss for the sake of general welfare or increased fairness (Kopits 2008). The dialogue with stakeholders and civil society needs to be constant to maintain their commitment to reform (IMF 2013).

6.1.2 Political commitment

Including reform in a wider government agreement can facilitate support from other political parties or interest groups. Political majorities in government and the strength of governmental political leadership will also dictate support (Lejour 2016). A reform process can take a long time and involve many different interest groups, so it needs strong political support and commitment (IMF 2013).

6.1.3 Transparent communication

There must be effective communication about the benefits of reform, the costs of subsidies and their beneficiaries to fight political inertia and opposition (UNEP 2001, Commander 2012, IMF 2013). An effective communication campaign that gives clear information on reform can facilitate political feasibility by making groups aware of the benefits of reform, as this will encourage political organisation to support reform. Communication can also help build the government's credibility on the outcomes of reform (IMF 2013) and might convince those who are going to lose out in the short term to support reform for expected higher future benefits (Inchauste and Victor 2017).

6.1.4 Compensation measures and complementary policies

When reforming subsidies, compensation packages and complementary policies can be a useful tool (Commander 2012, Inchauste and Victor 2017, IMF 2013). Because subsidy reforms inevitably entail losses to some sectors or vulnerable groups, public intervention can secure livelihoods and help the

government gain public support for reform (see Box 6). The type, size and duration of the compensation scheme should be defined in a case-by-case scenario after considering the particularities of every social group affected, such as women, the elderly or indigenous communities.

BOX 6. SUCCESSFUL ENERGY SUBSIDY REFORM IN GHANA

In 2005, the Ghanaian government decided to reform its fuel subsidy scheme. After a social impact analysis identified the winners and losers of subsidy removal, it launched an effective public communication campaign explaining the benefits and need for reform. The government also introduced complementary measures to mitigate the negative impacts of reform and build social support, eliminating fees for primary and secondary education, improving public transportation and investing in healthcare.

Including compensating and complementary measures at the time of reform ensured broad public support, which was bolstered by research on reform impacts on vulnerable groups and transparent communication.

Source: IMF (2013)

The Ghana experience shows that complementary measures – such as human or physical capital investments or improvements in fishery management – that might benefit those losing out in the reform can help. Such policies can substitute the role played by the subsidies or allow the government to reduce them in size and encourage further social legitimacy and support for reform (Inchauste and Victor 2017). Complementary measures should follow the principles of transparency and public accountability, while also maintaining predictability. So, as well as being linked to objectives to allow for dynamic adjustment of the policy, they should present clear criteria and timelines for their removal (Whitley and van den Burg 2015).

It is important to acknowledge that the possibility of implementing compensation packages and introducing complementary measures is closely linked to institutional ability and capacity (see Section 6.2) and might become challenging in low-income countries (UNEP 2001).

Researchers have developed a political economy framework to assess subsidy policy design by the way it distributes the benefits and costs of reform in society (Inchauste and Victor 2017). It is based on the idea that generally well-organised interest groups

define policy, often at the expense of general interests. In the case of fisheries, subsidies tend to be directed to small, powerful groups such as large-scale fleets (see Schuhbauer et al. 2017). If reform is efficient and equitable, we would expect citizens in general and vulnerable targeted groups to reap the larger share of benefits and powerful interest groups the smaller share. To gain the latter's support for reform, governments could offer them alternative benefits. These could include introducing management improvements, such as quotas, as a complementary policy to subsidy reduction that credibly increases the economic value of the fishery.

6.1.5 Adequate design, framing and timing

Careful planning will ensure reform is gradual, credible and transparent (OECD 2007). Assessing the distributional implications of subsidy reform to understand the poverty and social impacts will also help policymakers design targets and incentives and facilitate public support (IMF 2013).

Implementing reform gradually might reduce risk aversion to uncertainty around costs and benefits, as it allows a policy to be revised and monitored (Commander 2012). It may also take time to build consensus and negotiate in a participative way with stakeholders to gain support for reform (IMF 2013). Choosing the right timing for reform – for example, when favourable macroeconomic conditions dominate – is also vital (Atansah et al. 2017).

A gradual reform helps alleviate the costs of reform for impacted social groups, giving them time to modify their activity patterns and fishing efforts and adapt to the new financial situation (UNEP 2001). The low mobility and malleability of capital and labour in fisheries makes a gradual transition to reform more desirable (Clark and Munro 1975, Clark et al. 1979, Gréboval and Munro 1999).

The different timeframes of the costs and benefits of fiscal policy mean that politicians with a short-term view might encourage policies characterised by short-term benefits to certain groups, even if they become costly in the long term. International or multilateral institutions could impose credible constraints to policymakers to prevent this from happening (Victor 2009).

Reform needs to be financially feasible and sustainable. Even if it releases funds for compensation packages, governments may need to mobilise other funding sources in advance, to cover any time gaps and ensure the reform process is robust and does not become compromised (Whitley and van den Burg 2015).

6.2 How can institutional capacity enable fisheries subsidy reform?

One of the barriers to subsidy reform is the lack of government institutional capacity. Even if there is political will and public support for subsidy reform, institutional and technical capacities need to be aligned with the requirements for reform. Public institutions often lack the capacity to engage in alternative policies or new transfer mechanisms, such as compensation packages or complementary policies. Areas to focus on to overcome this barrier include: political and legal framework, human and financial resources, institutional coordination and the role of civil society and international organisations.

6.2.1 Political and legal framework

Three factors influence using subsidies as a component of public policy: government goals, its fiscal organisation and the availability of other tools (Victor 2009). Subsidy reform needs to focus on the supply side, analysing any alternatives that might be more effective and beneficial, since the number of subsidies in place reflects the availability of alternative policy instruments.

A country's political system (authoritarian or democratic) might also constrain or enable reform. For example, a lack of information on supporters means that non-democratic regimes tend to implement broad subsidy or transfer packages, even if these are inefficient (Commander 2012). Subsidies have been negatively correlated with a measure of government effectiveness, law and regulatory quality and low corruption. But the need for stakeholder engagement and public support in any subsidy reform requires mechanisms for dialogue and political resolution, which are typical of democratic regimes (Commander 2012). A stable and predictable policy environment might also facilitate fiscal reform (Inchauste and Victor 2017).

Institutional factors that are relevant for subsidy reform include: government decision making, legal constraints and public intervention in the economy (Inchauste and Victor 2017). One analysis of the institutional context of fishery reform in Bangladesh proposes several measures to help countries transition to fishery reform: establishing effective enforcement regulations and mechanisms; ensuring good governance at local and national levels; putting in place quick and effective judicial mechanisms to resolve cases of illegal fishing; and increasing awareness of the benefits of fishery reform and regulation. Doing so will require amending

legislation and allocating enough human and financial resources to fishery management and enforcement. Policy designs must include incentives for fishers and encourage alternative income-generating activities, while support from and involvement of stakeholders – such as fishers and traders – are also vital (Islam et al. 2016).

6.2.2 Human and financial resources

Having information systems that allow the government to monitor and assess impacts of reform is a key requisite for successful subsidy reform (IMF 2013). Information gathered would serve as the basis for reform design and feed into both the communications strategy and stakeholder participatory involvement process. This would allow the government to identify potential beneficiaries and losers and target compensatory measures (Commander 2012, Inchauste and Victor 2017).

Governments also need technical and institutional financial capacity to fund the compensatory or complementary measures necessary in any reform that affects vulnerable groups (Islam et al. 2016). Even if eliminating subsidies releases public funds to be invested in alternative policies, the process might take time, so governments should be able to dispose of those funds in advance (Whitley and Burg 2015).

In any subsidy reform, governments are also likely to need to reallocate resources across government bodies and adapt human and financial resources to the new scheme. For example, an efficient and equitable reform might target certain vulnerable groups rather than be widely applied. Not only will this require more information; governments will also need to allocate more human resources to those tasks, which might be problematic in low-income countries that are already constrained by limited resources.

6.2.3 Institutional coordination

Reforming subsidies for a more beneficial public use of funds requires adequate institutional and administrative capacities as well as strong links and coordination between governmental departments (Whitley and van den Burg 2015). The fisheries sector is characterised by complex institutional and governance structures – such as formal and informal institutions and public, private and civil society sector agents – involving cross-linkages between government departments and decision-making areas (Islam et al. 2016).

6.2.4 The role of civil society and international organisations

The level of organisation in a country's civil society will also define the success of reform (Inchauste and Victor 2017). All stakeholders should be involved in a reform process, maintaining a constant dialogue with the government in charge of carrying it out. Where some of the main interest or most impacted groups are not well organised, collaboration and consultation might become difficult. This may hinder support for reform from certain social segments, if their voices are not meaningfully incorporated in the process (IMF 2013).

International actors can also play a significant role in the process, providing technical and financial help to governments, raising awareness and encouraging public support (Whitley and van den Burg 2015). Outside pressure from multilateral agencies or international agreements such as the proposed WTO reform of fishing subsidies could help governments carry out otherwise unpopular policies without bearing too much of the political cost (Krane 2018).

7

Summary and conclusions

WTO negotiations to eliminate harmful subsidies and SDG Target 14.6 push for fisheries subsidy reform to reverse the negative impact that more than half of all subsidies have on the environment and trade.

But every subsidy reform has costs and benefits for different social groups, impacting on income-generating activities and communities. So, decision makers must carefully assess and consider the distributional impacts and implications of reform when deciding on the beneficial or harmful nature of any given subsidy.

Removing certain subsidies could benefit both fish stocks and social equity at the same time, but this will not always be the case. This does not mean that environmentally harmful subsidies should not be eliminated or reformed out of fear of their social effects. But any analysis must include distributive impacts and make potential trade-offs explicit to help those designing reforms decide whether to implement compensatory or complementary measures to mitigate these effects. Identifying context-specific barriers to and enablers for reform will also help ensure reform is successful and gains wide social support.

Fisheries economics and decision making have not traditionally considered the distributional effects of fisheries reform. Their main interest and focus of discussion has been efficiency and environmental impact: how to maximise rents from fisheries while ensuring sustainability of fish stocks and the fishing sector.

But the concept of distributive justice or allocating resources among the different members of a society has long been a concern among philosophers, social scientists, societies and individuals. Assessing the allocation of benefits and burdens of policy interventions should inform all decision making. This paper points to some of the tools that policymakers in the fisheries sector can use to assess the impacts of fiscal reforms in terms of beneficiaries and losers and incorporate efficiency and equity considerations into their analyses of fisheries subsidies. The benefits of including an equity analysis when reforming fisheries are not trivial: identifying the benefits and disadvantages of reforms for the most vulnerable groups of society and incorporating them into policy design will protect communities and livelihoods. It can also facilitate policy implementation by increasing public support to reform.

Abbreviations and acronyms

EEZ exclusive economic zones
SDGs Sustainable Development Goals
WTO World Trade Organization

Related reading

Steinbach, D, Mohammed, E and Steele, P (2016) A sustainable future for fisheries: how fiscal policy can be used to achieve SDG14. See <http://pubs.iied.org/pdfs/17411IIED.pdf>

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IIED, Fisheries. www.iied.org/fisheries

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While most fisheries are already overexploited, many governments allocate capacity-enhancing subsidies to the fishing sector, encouraging further overfishing. Target 14.6 of Sustainable Development Goal 14 and WTO negotiations to eliminate harmful subsidies both call for action on reform. Although the impacts of subsidies on fishing stocks are relatively well understood, their impacts on distribution and equity are less so. This paper analyses and discusses options for addressing equity concerns in fisheries subsidy reform and calls for governments to consider the impacts of subsidies and subsidy reform on vulnerable social groups.

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