

4 Government support to fisheries

This chapter describes government support policies to fisheries: the mix of policies being used, their magnitude, the contexts in which they are applied, and their potential impacts in terms of different policy objectives. It does so using the OECD Fisheries Support Estimate (FSE) database – the most comprehensive, detailed, and consistent collection of country level data on support to fisheries reported by governments – and by building on the OECD’s most recent analysis of the relative impact of different types of support policies. The analysis aims to help countries deliver on their commitments to Sustainable Development Goal 14, which seeks to “conserve and sustainably use the oceans, seas and marine resources for sustainable development” and calls for reforming support to fisheries such that, at a minimum, it should not compromise the sustainable use of resources. It also seeks to inform World Trade Organization (WTO) negotiations on fisheries subsidies.

Key recommendations

- To reduce negative impacts on the biological sustainability of fish resources, and inequitable effects across fleet segments, while increasing fisher welfare and the quantity of fish produced, governments should move away from policies that support inputs towards those that help fishers operate their businesses more effectively and increase their profitability. Scope for reform is significant: over 2016-18, USD 3.2 billion was annually spent on policies that reduce the cost of inputs. Support to fuel, alone, was the single largest direct support policy, accounting for 25% of total support to the sector. Conversely, less than a third of that amount (USD 1.0 billion) was granted in support that is partially de-coupled from fishing activities – such as income support and special insurance systems.
- Governments should ensure capacity for management, control and surveillance is sufficient to effectively manage fisheries, including in the high seas, and to eradicate illegal fishing. Between 2012-14 and 2016-18, spending on management, control and surveillance fell substantially relative to fleet size in several countries and economies. Ensuring this is not at the detriment of effective management and enforcement is indispensable to preserve the benefits of fishing for future generations in line with Sustainable Development Goal (SDG) 14, which seeks to “conserve and sustainably use the oceans, seas and marine resources for sustainable development”. It is also essential to ensure support achieves its socio-economic goals without encouraging overfishing and other unsustainable practices.
- Governments should avoid financing infrastructure that will encourage overcapacity and overfishing. In some countries, spending on infrastructure has increased significantly relative to fleet size since between 2012-14 and 2016-18.
- To ensure adequate resources are available to provide essential management services, and in line with the user pays principle, governments should consider requiring the fisheries sector to fund a reasonable proportion of the cost of essential management services. Taxpayers continue to pay most, if not all, of fisheries management costs in many places.
- In line with general policy advice from the OECD for government support, policies should be time-limited and targeted.
- Increasing transparency in government support to fisheries to allow public scrutiny, would help build trust in the sector and in policy responses. This would also enable countries to learn from each other’s experiences in order to better prepare for the future. Increased transparency is particularly needed on support to fuel and on payments to access foreign waters.
- Reforms to fisheries support policies – in common with agricultural support reforms – have the potential to contribute to wider objectives for food systems, which include providing food security and nutrition, generating economic opportunities along the food chain, and limiting the environmental footprint of food production. They are key components of policy efforts to improve well-being in coastal areas (in similar ways as agricultural policy reform is key to improve well-being in rural areas) and have the potential to contribute SDGs beyond SDG14, in particular those relating to climate, poverty and food.

4.1. Understanding fisheries support policies to achieve sustainability, welfare gains and enhance equity

International agreement on the need to reform fisheries support policies

While the fishing sector typically only makes a relatively modest contribution to national GDP in many countries around the world, it can be a regionally important source of economic activity, employment and food, and also holds significant cultural and social value in many countries (FAO, 2020^[1]).¹ Accordingly, most governments support their fisheries sectors in an attempt to achieve objectives such as maintaining coastal employment, improving fishers' welfare, ensuring the sustainability of the sector, encouraging food production and establishing sovereignty over disputed waters.

In pursuit of these objectives, government support can in some cases result in undesirable outcomes, by distorting the economic environment fishers operate in.² These negative effects include the build-up of excess fishing capacity, too much fishing taking place (that is, overfishing), and incentives to engage in illegal, unreported and unregulated (IUU) fishing, all of which are detrimental to the sustainability of fish resources and ecosystems. Policies that end up harming stocks are ultimately economically detrimental to those they aim to help as lower stock abundance results in both lower sustainable yields and higher costs of harvesting, thus affecting the resilience of the fishing sector. Such policies are also detrimental to society and the environment. They result in a sub-optimal contribution to food security and ecosystem services (such as food provisioning to other elements of the ecosystem), as well as in higher fishing impacts on non-target species, ecosystem habitats and global warming when more fishing than necessary is taking place (Hilborn et al., 2020^[2]).

With the United Nations (UN) Sustainable Development Goal (SDG) 14, the international community has recognised the need to reform support to fisheries such that, at a minimum, it should not compromise the sustainability of resource use.³ Target 14.6 calls for prohibiting certain forms of fisheries subsidies, which contribute to overcapacity, and overfishing, and eliminating subsidies that contribute to IUU fishing by 2020. To reach this objective, members of the World Trade Organization (WTO) are negotiating binding disciplines on fisheries subsidies that would allow countries to collectively prohibit harmful subsidies while taking into consideration appropriate and effective special and differential treatment for developing and least developed countries.

In addition to resulting in environmentally detrimental outcomes, some support measures are also inefficient at achieving their socio-economic objectives. For example, support that lowers the cost of fuel can transfer relatively low proportions of the money to fishers while also reducing the competitiveness of smaller-scale fishers, making the latter worse off than they would have been without the support. This can happen as a consequence of smaller-scale fishing operations being displaced by more fuel-intensive industrial fishing operations, which attract most of the support and increase effort in response (Martini and Innes, 2018^[3]).

Thus, in addition to pursuing sustainability objectives agreed on at the international level (SDGs, WTO), individual countries may also seek to reform their fisheries support policies to improve their effectiveness, their efficiency, and their distributional equity. This should be an even greater priority in the aftermath of the crisis generated by the COVID-19 pandemic, which has increased both the need for support and demands on public resources (OECD, 2020^[4]).

Building the evidence base to guide reform

This chapter aims to support the process of fisheries reform by shedding light on the current support policy mixes being used, the contexts and their potential impacts in terms of different policy objectives.

First is a summary of the guiding principles that have emerged from the literature, which should help individual countries evaluate their support policies against their own sets of policy objectives.

A comprehensive overview of the state of fisheries support policies is then presented, including trends over recent years. This makes use of the OECD FSE database against the backdrop of the guiding principles set out above. In doing so, it first examines support for services to the sector (SSS) and then direct support to individuals and companies in the fisheries sector (DSI).

The last section of the chapter sheds some light on how support to fisheries and agriculture compare. Policy makers often face similar objectives and constraints when designing support policy packages for these industries, especially in relation to food production, and the comparison is undertaken with a view to improving policy coherence, and helping identify possible spill-overs and synergies in designing the best policy mixes in favour of sustainable and resilient food systems.

4.2. Some general principles to guide fisheries policy reform

Redirecting support has the potential to improve sustainability, welfare and equity

Categorically identifying support measures as strictly “positive” or “negative” along a matrix of socio-economic and environmental objectives is not straightforward.⁴ Modelling work by the OECD⁵ shows that the relative effects of support, in each of these areas, can vary significantly depending on a combination of factors (Martini and Innes, 2018^[3]):

- The type of support policy in question
- The implementation criteria, such as who can receive support, under what conditions, and for how long
- The management framework in which fisheries benefitting from support operate – in particular, whether catch is capped at a level that prevents overfishing, and whether IUU fishing is effectively prevented
- The current health of fish stocks targeted by fisheries receiving support.

These findings provide some general insights and guiding principles to consider when looking at policy sets currently in use, their likely outcomes, and scope for redirecting support to more effectively achieve fisheries sustainability and other objectives.

The first and most important lesson from economic analysis of fisheries support policies is that there is scope to redirect public money towards measures that can improve outcomes on multiple fronts. For direct support in particular, moving away from policies that support inputs towards those that help fishers operate their businesses more effectively and increase their capacity to profit from the fishery, would reduce negative impacts on the biological sustainability of fish resources, increase fisher welfare and the quantity of fish produced, as well as avoid distortionary effects on equity across fleet segments.

Policies lowering the direct costs of fishing are the most likely to encourage unsustainable fishing. Specifically, payments reducing the relative cost of variable inputs (in particular fuel) increase demand for them and can result in increased fishing effort and more fishing taking place, with potential sustainability implications (unless regulation completely prevents overcapacity and overfishing, see Section 4.2). This type of support is also the most likely to increase IUU fishing, as some of the increase in effort can take the form of IUU fishing, further contributing to the risk of stock depletion. In some cases, support policies can provide benefits to IUU fishing at the expense of legal fishing activities. Payments for vessel purchase or modernisation, on the other hand, are the most likely to promote overcapacity because reducing the relative cost of vessel capital increases demand for it. Once this additional capacity has entered the fishery, the relatively durable and immalleable nature of vessels can create pressures for it to be utilised, potentially

beyond sustainable levels – creating overfishing – and potentially via IUU fishing. Overcapacity also has the potential to create political pressure for further support, such as payments for access to foreign waters. In addition, by lowering the relative cost of fuel or vessel power, input support can result in unnecessary CO₂ emissions (Parker et al., 2018^[5]) as well as larger levels of bycatch (Burgess et al., 2018^[6]).

Furthermore, input support can be inequitable when it allows larger vessels and companies, which typically consume the largest portion of inputs and hence input-support, to outcompete smaller ones in chasing limited renewable fish resources. Fuel subsidies, which still account for the majority of direct support to individual fishers and companies (as described in Section 4.3), are also the least effective means of transferring income to fishers. Under some management contexts, fuel subsidies have been estimated to deliver less than 10% of their value in benefits to fishers, the remainder being lost to increased effort and less abundant fish stocks or accruing with the providers of fuel (Martini and Innes, 2018^[3]).

In contrast, payments designed to support efficient business operations and develop human capital have the lowest negative impacts on sustainability of all direct support, while also performing well in terms of transfer efficiency. These include support such as upskilling, marketing training and assistance, along with concessional loans, special tax treatment on investment or returns on investment other than for capital in fishing vessels. Payments directly targeting fishers' incomes also deliver significant benefits to all participants in the fishing sector. Finally, support to services such as management, control and surveillance are also generally regarded as being good and necessary investments, even though – in line with the user-pays principle – these costs should ideally be recovered from the industry.

Effective fisheries management is a pre-requisite to effective support

The second key lesson to consider when reflecting on fisheries support policy choice is that effective fisheries management is a necessary, but not entirely sufficient, pre-requisite for effective support policies. Indeed, all the direct support policies considered by OECD modelling work can result in stocks being overfished to some extent, due to the varying potentials to increase fleet capacity, lead to overfishing and encourage IUU fishing. An effective fisheries management system is, however, seen to mitigate, although not entirely eliminate, this effect.⁶ Limiting the total quantity of fish caught to a sustainable level is thus necessary to mitigate the impacts of support policies on the sustainability of fish stocks. What is more, all direct support policies, and most services to the sector, provide a much greater level of benefit to fishers when excess fishing is prevented, as the benefits are not lost to inefficiently high consumption of inputs and the reduced catches and revenues that result from overfished stocks.

However, it is important to recognise that no country has a perfect management system. At the global level, just over 34% of global fish stocks are considered to be in an unsustainable situation (FAO SOFIA 2020), and, in some regions (the Mediterranean and Black Sea, the Southeast Pacific, and the Southwest Atlantic), more than half are estimated to be fished at unsustainable levels. When considered at the country or economy level, data gathered in Chapter 2 of this review indicates that a significant proportion of the assessed stocks reported to the OECD are also not in a biologically sustainable situation, including some of the most valuable in terms of value of landings. What is more, IUU fishing continues to pervade global fisheries (Chapter 3).

Even greater caution is thus required in supporting fisheries that target stocks that are overfished and those for which countries are not in a position to adequately assess their status. Particular restraint should also be applied when supporting unmanaged fisheries, as well as fisheries that are particularly subject to IUU fishing. In practice these tend to overlap, as, for many of the fisheries where stocks' health is poor or unknown, it is likely that the ability (or efforts) to manage stocks properly and undertake effective MCS is also limited (Hilborn et al., 2020^[2]). Such fisheries are notably, but not only, to be found in the high seas. In some circumstances, the only socially, environmentally, and economically sustainable option may be to

reallocate some of the budget typically used to support fisheries to offer viable alternatives in other parts of the economy, including aquaculture.

Finally, actively disincentivising unsustainable behaviour across all supported fisheries is essential. SDG 14 recognises the urgent need to cut support to operators engaging in IUU fishing, and this is an area on which negotiations on fisheries subsidies at the WTO have focused. However, data on policies to fight IUU fishing collected by the OECD in 2019 show that less than 55% of the 33 countries surveyed reported fully restricting support for operators convicted of IUU fishing while 18% of them do not even have a legal framework to do so (Chapter 3).

4.3. State and trends in support to fisheries

The FSE database (Box 4.1) attempts to capture the total monetary value of government support to their fishing industries by providing an inventory of all policies that generate a transfer from taxpayers to fishers. The database records information on the attributes of policies, including their implementation criteria, along with their annual value to the industry in both USD and the national currency of the reporting country. All discussion in this chapter is undertaken in USD. To analyse trends in fisheries support in recent years, 2016-18 and 2012-14 are used as reference periods.

Box 4.1. The OECD Fisheries Support Estimate (FSE) database

Based on information submitted by national authorities, the FSE database measures, describes and classifies fisheries support policies in a consistent and transparent way that facilitates their evaluation against defined objectives.

The FSE contains three main categories of policies, each of which are subdivided further based on factors that include implementation criteria and policy intent:

- **Support for services to the sector (SSS)** comprises support to infrastructure; management, control and surveillance; research and development; education and training; marketing and promotion; fishing communities; access to foreign waters; and other services to the sector.
- **Direct support to individuals and companies in the fisheries sector (DSI)** comprises support to income; insurance; fixed inputs (in particular vessels and gear); fuel¹; other variable inputs; capacity reduction; and other direct support.
- **Payments made by the fisheries sector (PMS)** – that is, fees paid by service users, such as for port access or management, and taxes or fees on resource use and associated profits, which reduce the extent to which taxpayers finance support to fisheries.

The FSE database covers all OECD countries as well as ten key non-OECD economies with significant marine fisheries (referred to as “emerging economies” in what follows). Together, the 39 FSE countries and economies included in the database represented just over 69% of capture fisheries production by volume in 2016-18.

The OECD countries in the FSE database are Australia, Belgium, Canada, Chile, Colombia, Denmark, Estonia, France, Germany, Greece, Iceland, Ireland, Italy, Japan, Korea, Latvia, Lithuania, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovenia, Spain, Sweden, Turkey, United Kingdom, and the United States.

The emerging economies in the FSE database are Argentina, Brazil, the People’s Republic of China (hereafter “China”), Costa Rica, Indonesia, Malaysia, Peru, Philippines, Chinese Taipei, and Viet Nam.

1. In the OECD dataset ‘Fisheries Support Estimate (FSE)’ (OECD.Stat), support to fuel is reported under two separate headings depending on the mechanism: fuel tax concessions are reported under ‘tax exemptions’ while direct transfers to reduce the cost of fuel are reported under ‘transfers based on input use’. Since impacts are similar, they are jointly considered as support to fuel in this chapter.

2. The FSE database also includes data for India for 2018. However, it was not considered in this chapter to ensure data consistency over the period studied (2012-14 versus 2016-18).

Total government support

Over 2016-18, the 39 countries and economies that reported their support to fisheries to the OECD Fisheries Support Estimate (FSE) database (Box 2.1) together transferred a gross annual average of USD 9.4 billion to fisheries. The net total FSE amounted to USD 9.1 billion, when payments made by the fisheries sector (PMS) to access and use resources or in payment for services are accounted for. Both total FSE and net total FSE decreased since 2012-14 (from a total FSE of USD 13.1 billion and net FSE of USD 12.8 billion). Total support equated to 10% of the average value of landings over 2016-18, down from 13.8% in 2012-14.⁷

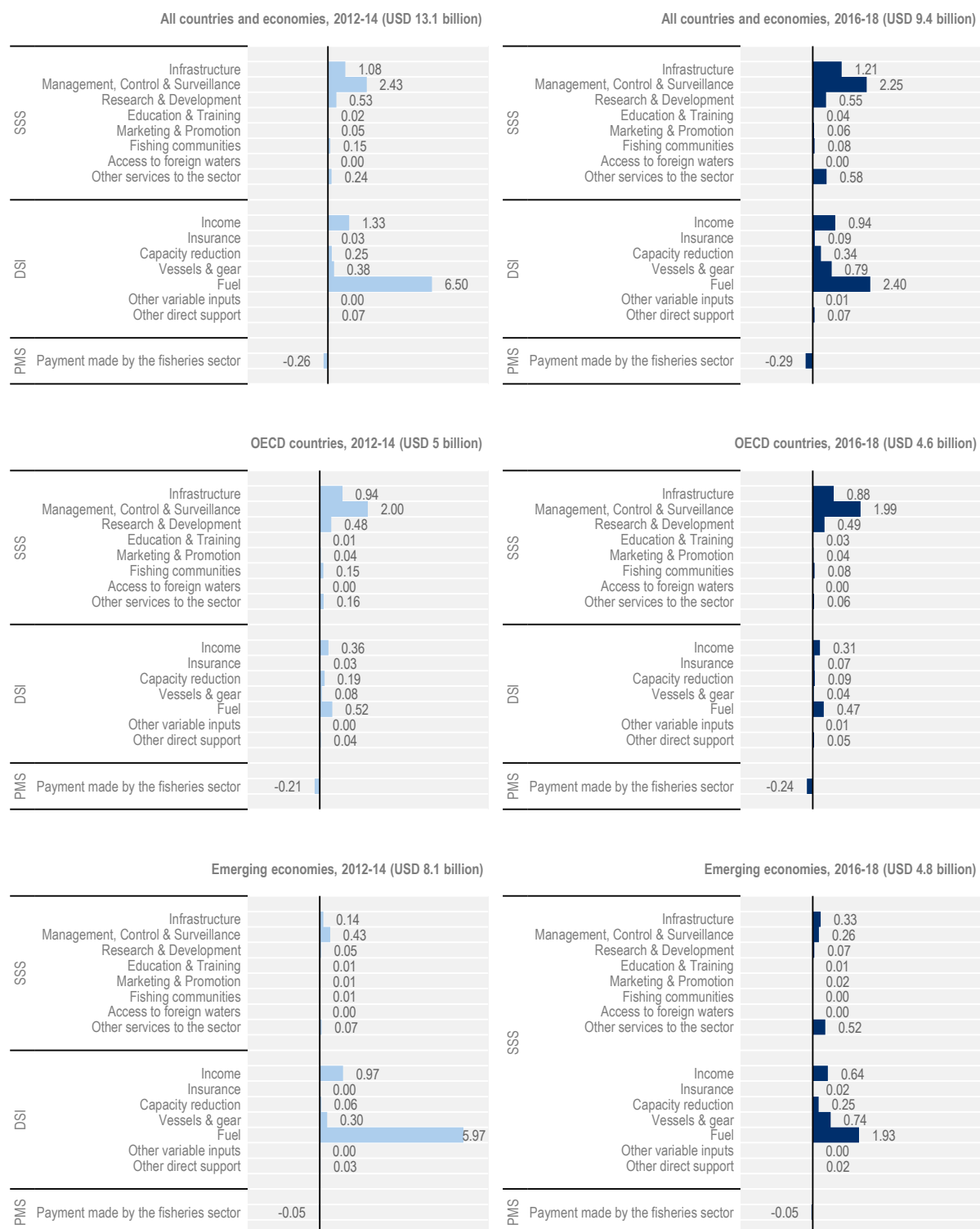
OECD countries together provided a total of USD 4.6 billion per year in support, on average, over the period 2016-18 (net FSE USD 4.4 billion), down slightly from USD 5 billion in 2012-14 (net FSE USD 4.8 billion). This equates to 12.3% of the average value of landings in 2016-18, slightly down from 12.6% in 2012-14, as the reduction in total support outpaced the small (5.9%) reduction in value of landings over the same period.

Non-OECD emerging economies (henceforth referred to as “emerging economies”), on the other hand, together provided a total of USD 4.8 billion per year in support, on average, over the period 2016-18 (net FSE USD 4.7 billion), having almost halved from USD 8.1 billion in 2012-14 (net FSE USD 8.0 billion). For emerging economies where the value of landings was also available, the 2016-18 average FSE equates to 8.3% of the average value of landings over the same period, a decrease from 15.0% in 2012-14, which was driven by a combination of the substantial reduction in FSE and a concurrent 15.2% increase in the value of landings.⁸

At the global level, a relatively small number of countries account for the majority of catch, fleet and employment.⁹ A given rate of support in these countries will, of course, imply a higher value of support in absolute terms. In 2016-18, 78% of all support was reported by five countries (China – 41%, Japan – 13%, United States – 10%, Canada – 8% and Brazil – 7%), all of which rank in the top-5 countries and economies reporting to the FSE database in terms of country share of either global capture fisheries production volume, fleet or employment. Norway, Poland, Korea, Turkey, and Australia also individually accounted for between 2% and 3% of total reported support, while the remaining countries and economies in the database each accounted for 1% or less.

These total amounts of support recorded in the FSE database should however be viewed with caution. The database includes a variety of support policies, which can have different relative impacts on both the sustainability of biological resources and socio-economic variables. The composition of support therefore needs to be understood and contextualised before any comparison across countries can be made. When discussing particular types of support (in Section 4.3 for services to the sector and Section 4.3 for direct support), and as appropriate, country-level data is therefore also considered in the context of the value of landings (per USD), fleet size (per gross tonne, gt), and employment (per fisher).

Figure 4.1. Recent changes in support to fisheries (FSE) disaggregated into its subcomponents



Source: OECD dataset 'Fisheries Support Estimate (FSE)' (OECD.Stat).

Despite these caveats, looking at aggregate trends and comparing the relative weights of different types of policy in the totals (at the level of all countries and economies in the FSE database, OECD countries, or emerging economies) gives useful policy insights. The constituent categories and sub-categories of the FSE, and how they contribute to the totals in the reference periods, are reported in Figure 4.1.

One initial result already stands out in Figure 4.1 from a policy perspective. Support to fuel remains the single largest direct support policy at the level of both OECD countries and emerging economies. This is despite reported support to fuel in the FSE database being an underestimate of the true picture.¹⁰ Fuel support is known to be both ineffective at achieving socio-economic objectives while also incentivising overfishing (as discussed above). Major scope for reform is thus to be found in reallocating such support to more sustainable and more effective policies.

Box 4.2. Support to fisheries in response to the COVID-19 pandemic

The COVID-19 pandemic continues to be a major source of disruption and uncertainty for the entire seafood sector. It has impacted every level of the supply chain and consequently governments have acted, providing specific support, with the objective of mitigating impacts on food production, employment, and the welfare of those depending on the sector.

While support in this context is generally necessary and important, the policy actions taken should be carefully considered, to avoid detrimental outcomes either now or in the future. The latest general policy advice from the OECD for government support policies in response to the COVID-19 pandemic recommends any actions should be time-limited, targeted, cash-based, and consistent with longer-term sustainability objectives (OECD, 2020^[7]). For fisheries in particular (OECD, 2020^[4]), support policies should be designed so that they do not encourage unsustainable fishing now or in the future, following the general principles described in Section 4.2. In addition, it is essential fisheries management remains effective and evidence-based. This will mean resisting growing pressures to make up for losses (caused by restrictions to fishing and lost market opportunities due to the crisis) by changing regulation (such as on fishing seasons, days at sea or total catch limits). It will also mean resolving practical challenges to the monitoring of fishing activities and enforcement of regulation (Chapter 5).

The OECD has been tracking the measures to support the seafood sector adopted in response to the COVID-19 pandemic. By the end of August 2020, 89 such government support measures had been identified across 27 countries and economies (including some measures adopted at the level of the European Union).¹ Associated support amounts were found for 40 of these measures, totalling USD 5.4 billion. However, many of these support policies –together worth USD 4.7 billion– are packages of measures that target the sector as a whole, including aquaculture producers, seafood processors and seafood distributors in addition to the fishing industry. The 28 support policies targeting fisheries only, that would normally fall under the scope FSE, total USD 404 million (and additional USD 61.8 million and USD 211.3 million were identified as, respectively, benefitting only aquaculture and distributors and processors).

Among the 49 support measures for which associated support value could not be established, 15 are concessional loans, totalling USD 1.9 billion. It is still unclear how these loans will benefit the sector and their implications for the total level of support provided, since the difference in interest rates between market and the proposed preferential rate (essential for calculating the value of support) is difficult to measure.

Therefore, the extent to which the envelope associated with COVID-19 support policies for the seafood sector will ultimately benefit fisheries, and how this support will materialise, remains uncertain. Increasing transparency in policy responses to allow public scrutiny would help build trust in the sector

and in policy responses, and enable countries to learn from each other's experiences in order to better prepare for the future. Information on responses to the crisis may also be an opportunity to accelerate transformations in the fisheries and aquaculture sector to build its resilience to future shocks. Any opportunities to attach 'blue strings' to support policies where appropriate should be taken.

Information on those policies that directly target fisheries is however encouraging. Most of these measures seem to have been designed to support fishers and fishing companies' revenues, not to lower the cost of inputs. Fee waivers have also been adopted, as well as marketing and promotion measures to make seafood products more accessible to consumers. In particular, governments seem to have supported the emergence of various services connecting directly individual fisheries to consumers (OECD, 2020^[4]), in response to consumers' preferences for contactless deliveries. Such marketing approaches could be an opportunity to reinforce the resilience of fisheries markets to future disruption.

On the other hand, investment in education and training was not seen as being the focus of the policy packages reviewed. Directing some of the funds available in relief packages that have not been disbursed yet to such measures could be an opportunity to support fishers in adapting to a changing market environment beyond the crisis (as well as to other major sources of possible disruptions to seafood production such as environmental hazards related to climate change). Spending on improving capacity for management and monitoring, control and surveillance (MCS), and resilience of such essential services for the sustainability of the sector and its resource base in the face of severe shocks would also be welcome in many countries and at the regional level.

1. The 27 countries and economies for which were identified support measures for the seafood sector adopted in response to the crisis generated by the COVID-19 pandemic are: Australia, Canada, Chile, China, Chinese Taipei, Colombia, Costa Rica, Iceland, India, Indonesia, Ireland, Italy, Japan, Korea, Latvia, Mexico, New Zealand, Norway, Peru, Portugal, the Russian Federation, Sweden, Thailand, Turkey, United Kingdom, United States, and Viet Nam.

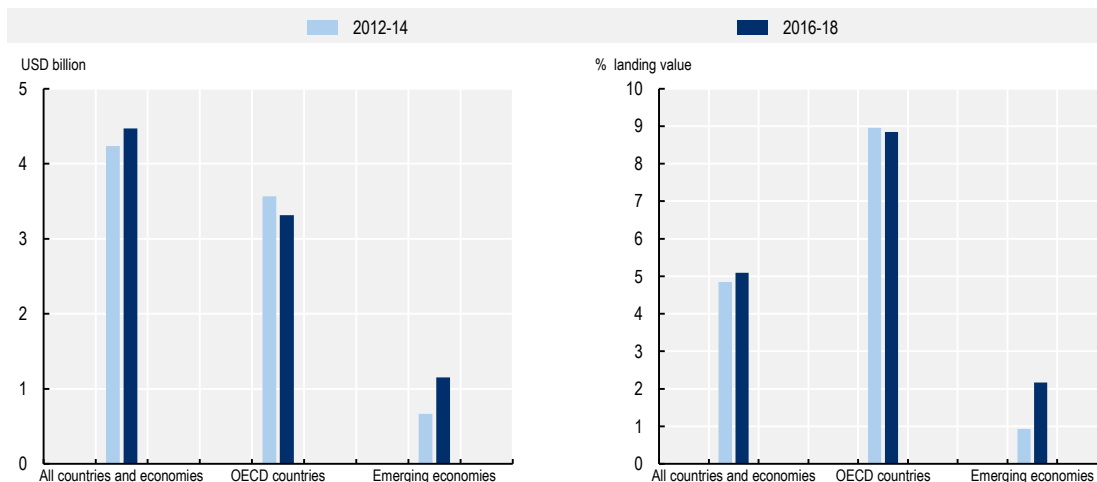
Support for services to the fisheries sector (SSS)

Overall support for services remains significantly higher in OECD countries than in emerging economies despite growing in the latter

A combined total of USD 4.8 billion was spent annually, on average, by all countries and economies in the FSE database, on financing services to the fisheries sector (SSS) in 2016-18 (Figure 4.2 left panel). An average of USD 0.29 billion was recouped across all countries via PMS over the same period. The annual average public cost of services to the fisheries sector – this being SSS once any PMS is accounted for (net SSS), was thus USD 4.5 billion, a 5.5% increase when compared to 2012-14 and one driven by SSS increasing more than PMS in absolute terms. Net SSS amounted to 49% of net total support in 2016-18, a marked increase from 33% in 2012-14.

Both the growth in net SSS and in the contribution of net SSS in net total support at the level of all countries and economies in the FSE database were driven by change in emerging economies. Emerging economies spent a total annual average of USD 1.2 billion financing SSS in 2016-18, while an average of USD 0.05 billion was recouped via PMS, making net SSS USD 1.15 billion. This is an almost USD 0.5 billion increase in SSS, from USD 0.7 billion in 2012-14. PMS changed little, from USD 0.05 billion in 2012-14 (so with such low levels of PMS in the periods considered, net SSS was almost the same as SSS. In absolute terms, the increase in SSS (and net SSS) in emerging economies was driven by China's increased spending, from USD 0.35 billion in 2012-14 to USD 0.97 billion in 2016-18; however spending also increased in all but two of the other emerging economies in the database. Changes to PMS were mixed, falling in two cases while increasing in three. Overall, at the level of emerging economies, net SSS jumped from 8% to 24% of net total support.

Figure 4.2. Net support for services to the sector (SSS) in recent years in absolute terms (left) and as a proportion of the value of landings (right)



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Marine landings' (OECD.Stat).

OECD countries annually spent a total of USD 3.6 billion financing SSS, on average, in 2016-18, while an average of USD 0.24 billion was recouped via PMS over the same period. The annual average public cost of services to the fisheries sector, net SSS, was consequently USD 3.3 billion in 2016-18, down when compared to USD 3.6 billion in 2012-14 and driven predominantly by reduced spending on SSS rather than increased PMS. SSS fell in the majority of OECD countries while changes were mixed in terms of PMS. Overall, at the OECD level, net SSS increased from 74% to 76% of net total support.

As governments provide SSS to support the fishing sector as a whole, and needs for services are likely partly dependent on the size of each country's fleet, it is informative to consider the intensity of fisheries services financing relative to fleet size.¹¹ When all countries and economies in the FSE database are considered, USD 232 in SSS were granted for each gross tonne of fleet capacity in 2016-18, up from USD 213 per gt in 2012-14. Services financing relative to fleet size is generally higher (but decreasing) among OECD countries, at USD 521 per gt in 2016-18, per year on average, down from USD 569 per gt in 2012-14.¹² While both net spending on SSS and the overall size of the fleet fell at the OECD level over the period under consideration, net SSS fell by the greatest extent. A contrasting situation is observed for emerging economies, where annual spending was USD 107 per gt of fleet capacity in 2016-18, having more than doubled from USD 43 per gt in 2012-14 (driven by increased spending on SSS, as described above, outpacing growth in gt, which increased by 5.3%). Similar trends were observed at the level of individual emerging economies, where levels of services financing relative to fleet size were amongst the lowest but increasing in all cases.

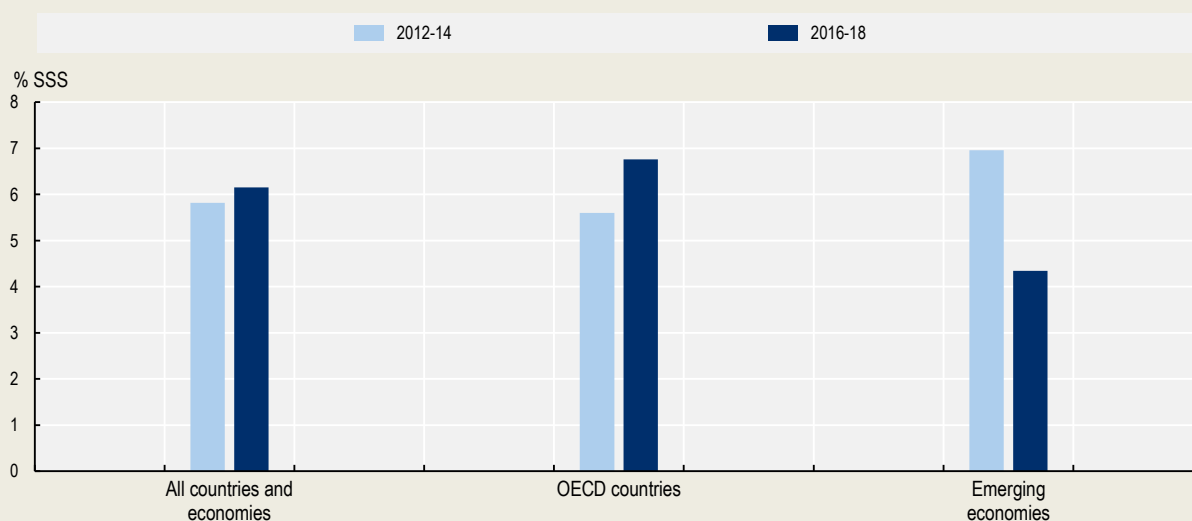
Spending on SSS also increased relative to the value of landings across all countries and economies in the FSE database, amounting to 5.1% of it in 2016-18, a slight increase from 4.8% in 2012-14 (Figure 4.2 right panel).¹³ In absolute terms, and despite a small increase in the value of landings, this was again predominantly driven by net SSS increasing in emerging economies, where net SSS amounted to 2.2% of the value of landings in 2016-18, up from 0.9% in 2012-14. In OECD countries, net SSS generally fell and, at the aggregate level, this was in line with a reduction in the value of landings, resulting in the value of net SSS relative to landings changing little (8.8% in 2016-18, down from 9.0% in 2012-14).

Box 4.3. Payments made by the fisheries sector (PMS)

The fisheries' sector contributes in general only modestly to funding services to the sector

As certain activities or services are generally either best provided by governments, such as MCS, or potentially in partnership with industry, such as management, payments made by the fisheries sector (PMS) have an important role in ensuring the user pays, in reducing the extent to which taxpayers fund the fishing sector, but also in creating pressure for the cost-effective provision management services (Kauffman, 1997^[8]). The sector's ability to fund a reasonable proportion of the costs of management also provides some indication of its economic performance.

Figure 4.3. Payments made by the fisheries sector as a proportion of spending on services to the sector (SSS) in recent years



Source: OECD dataset 'Fisheries Support Estimate (FSE)' (OECD.Stat).

Payments can be made by the fisheries sector to access and use resources or directly to pay for some services. While the absolute value of these PMS has increased at the level of both OECD countries and emerging economies, it has actually fallen in emerging economies when assessed as a proportion of SSS, from 7.0% in 2012-14 to 4.3% in 2016-18. At the OECD country level, PMS increased modestly from 5.6% of SSS in 2012-14 to 6.8% in 2016-18. A perhaps more intuitive way to think of this is that in 2016-18 the public was still funding 93% of services provided to the fishing industry in OECD countries and 96% in the emerging economies. Of all the countries and economies reporting PMS to the FSE database, Iceland is the only one where, once PMS are accounted for, net total support is completely offset (and actually negative); Costa Rica completely offset SSS in 2012 and 2013, while Viet Nam reports doing the same in 2016 (Annex Figure 4.A.1).

These trends should however be viewed with caution. Relatively few countries and economies reported PMS to the FSE database in 2016-18 (only 17 out of the 39, of which 11 OECD countries and 6 emerging economies). While payments by the sector are not undertaken in all countries, PMS are also believed to typically be less comprehensively reported in the FSE database than support policies. What is more, in

some countries, the need for PMS may be limited if the industry directly bears some or all of the cost of services (including those required by governments) rather than reimbursing government through PMS.¹

1. For example, dockside monitoring and at-sea observers are funded privately by industry in Canada, and, while required by government, these costs are not tracked by government nor reported in the FSE. Where such services are publicly funded in the first place, with participation from industry, they would appear both in SSS and in PMS.

OECD countries report spending proportionally more (and increasingly) on management, control and surveillance than emerging economies, where spending on services was redirected to infrastructure

Some SSS aims to ensure the sustainability of the sector or improve fishing communities' well-being, while only indirectly supporting the intensity of fishing activities. For all countries and economies in the FSE database, such services, including management, control, and surveillance, accounted for an annual average of 48.9% of gross spending on SSS in 2016-18 (USD 2.3 billion), down from 57.4% (USD 2.6 billion) in 2012-14.

At the aggregate OECD level, support to these services accounted for 58.1% of gross spending on SSS in 2016-18 (USD 2.1 billion), up from 56.7% in 2012-14 (USD 2.1 billion) as a consequence of reduced overall spending on SSS. Support for management, control, and surveillance was the single largest form of support reported at the OECD level in 2016-18 (43.3% of total support), far ahead of support to infrastructure and fuel, which, respectively accounted for 19.1% and 10.1% of the reported total (Figure 4.1). In individual OECD countries (Annex Figure 4.A.2), support to management, control, and surveillance increased in most cases (and by large proportions in a few countries, notably France, Italy, Belgium, and the United Kingdom, but all from relatively low bases). A large proportional increase in support indirectly supporting the intensity of fishing activities was also seen in Lithuania, but this was predominantly driven by increased spending on fishing communities.

In emerging economies, the same services accounted for an average of 21.8% of gross spending on SSS in 2016-18 (USD 0.26 billion), down substantially from 61.2% in 2012-14 (USD 0.44 billion). The decrease was driven by reductions in reported spending on management, control, and surveillance by China (42%) and Brazil (94%) over the period considered as spending in this area increased in all but one of the remaining emerging economies (Annex Figure 4.A.2). Despite these reductions, support for management, control, and surveillance as a proportion of total support remained relatively unchanged at the emerging economy level, at 5.4% in 2016-18 compared to 5.3% in 2012-14, due to more general reductions in overall (absolute) levels of support in countries such as China, Brazil and Malaysia.

However, it is important to note that reporting amounts spent on management, control, and surveillance can be a challenging task as a number of authorities are typically involved. The contrast in the relative contribution of management, control, and surveillance to total support between OECD countries and emerging economies, probably partly reflects this. In addition, what represents an adequate level of public spending to ensure effective management and enforcement is highly context-specific and an area that would benefit from further investigation, especially as, in some settings, components of management, control, and surveillance may be directly funded by industry (and hence not captured in the FSE – see Box 4.3). Nevertheless, given the importance of ensuring such spending is sufficient to ensure it achieves its sustainability goals, and in the absence of other information, large reductions on spending over relatively short periods – and starting from already relatively low levels – raises concern.

Other SSS policies target fishers' ability to operate their businesses more efficiently or more sustainably, such as investment in education and training, marketing and promotion or research and development. These services accounted for an annual average of 13.6% of gross spending on SSS in 2016-18

(USD 0.65 billion), when all countries and economies in the FSE database are considered, almost unchanged from 13.2% in 2012-14 (USD 0.59 billion). At the OECD level, these services accounted for an average of 15.6% of gross spending on SSS in 2016-18 (USD 0.56 billion), up slightly from 14.1% in 2012-14 (USD 0.53 billion). For emerging economies, these services accounted for an average of 7.6% of gross spending on SSS in 2016-18 (USD 0.09 billion), down in terms of relative importance from 8.6% in 2012-14 (USD 0.06 billion) but up in absolute terms as SSS also increased. At the individual country level, one area where a number of OECD countries (notably Norway, the Netherlands, Iceland, New Zealand and Australia), along with Malaysia and Brazil, reported relatively high and stable allocations within SSS was in spending on research and development (Annex Figure 4.A.3).

Finally, some forms of support can have a more direct relationship with production capacity, such as investment in or subsidised access to infrastructure like ports. When infrastructure is publicly funded and costs are not recovered from the industry, the costs of fishing are reduced, and profits increased. Where management is not entirely effective at limiting fishing to sustainable levels, this can increase pressure on stocks by making fishing more attractive and drawing resources into the sector (OECD, 2006^[9]). For all countries and economies in the FSE database, services of this type accounted for a total of 25.4% of gross spending on SSS in 2016-18 (USD 1.21 billion), up from 24.1% in 2012-14 (USD 1.08 billion). The increase resulted from a doubling in average annual spending on such services in emerging economies (from USD 0.14 billion in 2012-14 to 0.33 billion in 2016-18; which also led to an increase in their relative share of gross SSS from 19.8% to 27.5%). This was predominantly driven by absolute spending in this area by China increasing by USD 0.26 billion (completely offsetting a USD 68.5 million reduction by Brazil over the same time period). In OECD countries, spending on these services remained relatively stable at the aggregate level: they accounted for a total of 24.7% of financing of gross SSS in 2016-18 (USD 0.88 billion), down slightly in relative terms from 24.9% in 2012-14 (USD 0.94 billion). However, when country level changes are considered, the majority of OECD countries reported substantial reductions in support to infrastructure, which were largely offset by a combination of lower spending on SSS in general and increased allocations (in absolute terms) in this area by some countries – predominantly Canada, Mexico, Chile and Ireland (Annex Figure 4.A.4).

In theory, SSS should also include payments for access to foreign waters. However, such payments were not reported at all. This suggests total SSS figures are an underestimate and more transparency on payments for access to foreign waters should be encouraged.

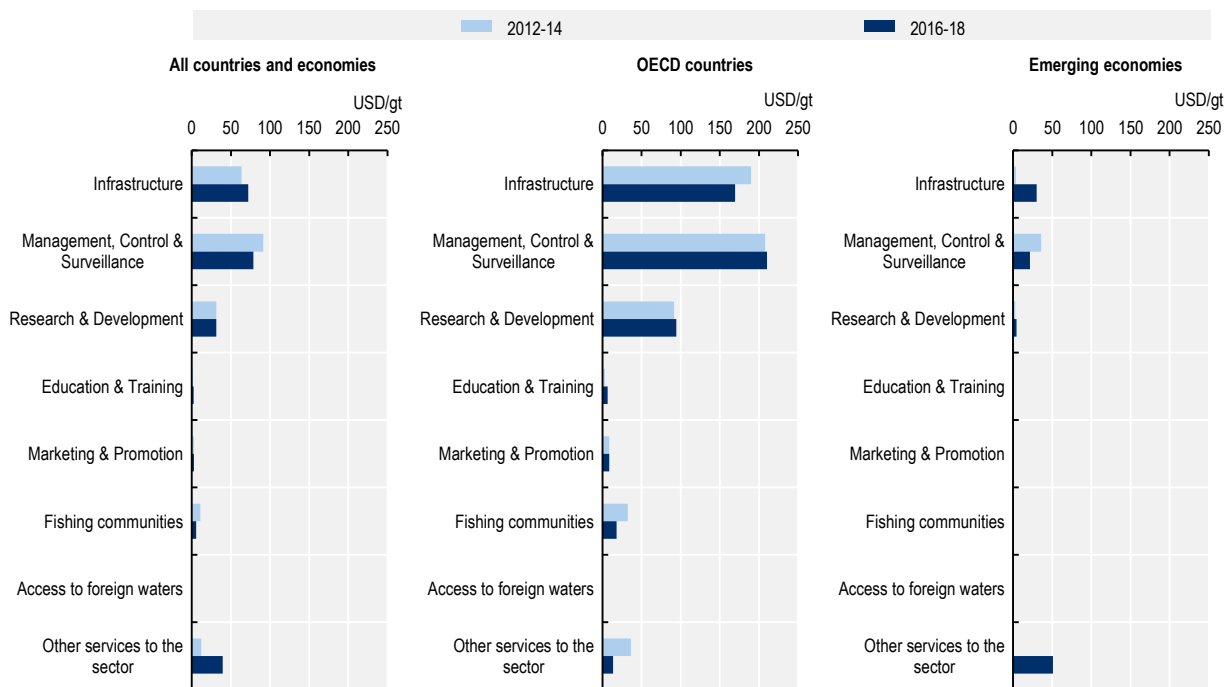
When the individual components of SSS are considered relative to the size of the fleet (Figure 4.4), higher intensity of spending at the OECD level compared to emerging economies occurs in all areas other than other services to the sector, and especially with respect to spending on management, control, and surveillance, infrastructure, and research and development. This pattern is more mixed but generally holds at the individual country level, some notable exceptions being relatively intensive spending (per gt) on management, control, and surveillance by Costa Rica and on research and development by Argentina. While partially a reflection of the relative consolidation of fishing fleets in many OECD countries, the general pattern of more intensive spending remains when these forms of support are considered as a proportion of the value of landings, suggesting a more widespread and intensive application of management, enforcement, and research programmes.

Trends are mixed at the OECD level. The intensity of spending on infrastructure, support to fishing communities and other services to the sector fell, while it remained stable or increased slightly for management, control, and surveillance, marketing and promotion, education and training, and research and development) (Figure 4.4).

When the components of emerging economies SSS are looked at in relation to fleet size, the greatest increases were in the intensity of support to other services to the sector and to infrastructure (Figure 4.4). At the same time, the intensity of support to management, control, and surveillance was reduced by 40%,

suggesting again that sustainability issues may be at stake in these countries (and worth considering in future policy choices). At the country level, these changes are again dominated by China, where support to other services grew from nothing in 2012-14 to USD 55 per gt in 2016-18, an intensity exceeded by only Poland at USD 76.2 per gt, following widespread reductions in this form of support by OECD countries. The intensity of support to infrastructure in China also increased, from USD 3.8 per gt in 2012-14 to USD 32.4 per gt in 2016-18 (Annex Figure 4.A.4). The intensity of support to management, control, and surveillance actually increased in all emerging countries other than China (Annex Figure 4.A.2).

Figure 4.4. Intensity of spending on services to the fisheries sector relative to fleet size in recent years



Note: For OECD countries, Canada and the United States are not included as no data was available on fleet size in gt for the period 2012-14. The figure for the emerging economies is based on data for Argentina, China, Costa Rica and Chinese Taipei.
Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Fishing fleet' (OECD.Stat).

Direct support to the fisheries sector (DSI)

Direct support to individual fishers and companies has fallen significantly following a steep downward trend in emerging economies (driven by China)

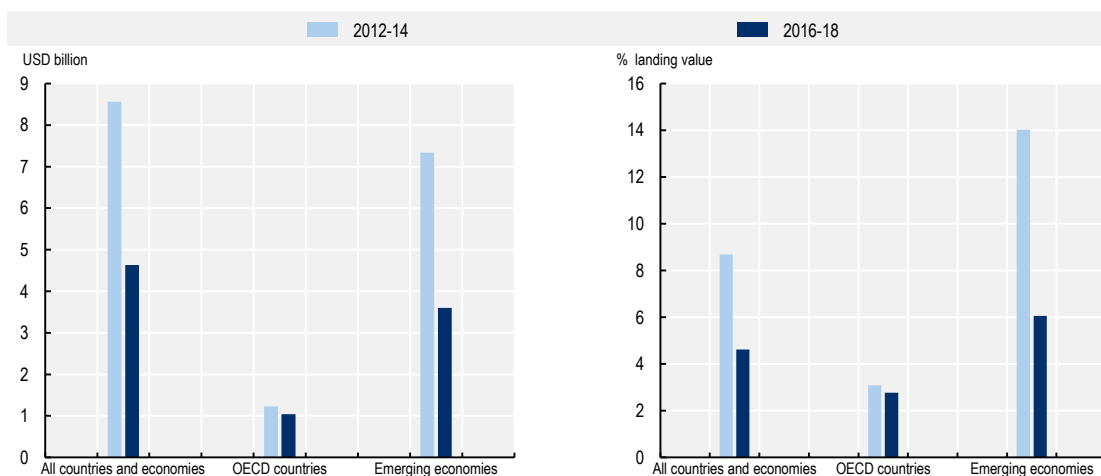
Direct support to individuals and companies in the fisheries sector (DSI) for all countries and economies in the FSE database totalled USD 4.6 billion per year, on average, in 2016-18 (Figure 4.5), a 46% reduction from the USD 8.6 billion reported in 2012-14. DSI amounted to 4.6% of the value of landings in 2016-18 (equating to just under 5 cents in every dollar of revenue the sector generated), approximately half the 8.7% reported in 2012-14.

This overall fall in direct support to fisheries is a result of a significant drop in emerging economies where DSI totalled USD 3.6 billion per year, on average, in 2016-18, half the USD 7.3 billion reported in 2012-14. This amounted to 6.0% of the value of landings in 2016-18, a substantial decrease from the 14.0% seen

in 2012-14. This was a consequence of the value of landings by emerging economies increasing by 15% and a reduction in their absolute spending on DSI, predominantly through a reduction in spending on fuel support in China.

At the OECD country level, DSI totalled USD 1.0 billion per year, on average, in 2016-18, down from USD 1.2 billion in 2012-14. This equated to 2.8% of the value of landings in 2016-18, a slight decrease from 3.1% in 2012-14 and an indication that DSI fell faster than the value of landings. At the individual country level, the intensity of DSI relative to value of landings fell in almost all OECD countries and generally increased only slightly when it did not, one exception being Poland which had the highest intensity of all countries and economies in the FSE database and this increased over the period considered.

Figure 4.5. Direct support to individuals and companies in the fisheries sector in recent years in absolute terms (left) and as a proportion of the value of landings (right)



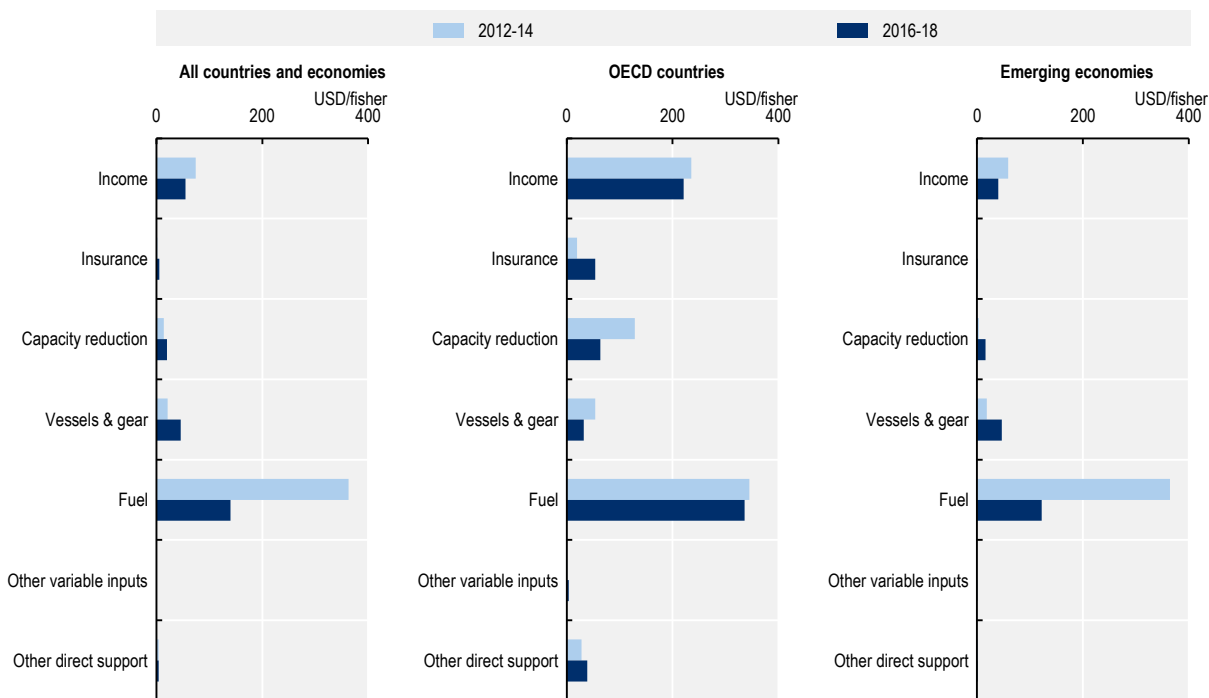
Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Marine landings' (OECD.Stat).

A common objective of direct support is to maintain or increase the incomes of fishers, both to support individual livelihoods as well as the economies of communities in which fishing income plays a significant role. The intensity of direct support at the level of all countries and economies in the FSE database was USD 270 per fisher in 2016-18, a reduction from USD 478 per fisher in 2012-14; a consequence of the general reductions in absolute spending on DSI by countries exceeding the concurrent reductions in employment at all levels.

While in absolute terms, OECD countries' DSI is less than a third of the DSI reported by emerging economies, the average level of support per fisher is much higher at the OECD level than in emerging economies (Figure 4.6). At the OECD level, USD 750 of support was granted, per fisher, in 2016-18, a relatively small reduction from USD 811 per fisher in 2012-14. Notable exceptions to this were Poland, the Netherlands, Sweden and Denmark, which had intensities of USD 25 000 or more per fisher, and, in all instances, this was predominantly support lowering the cost of inputs. DSI per fisher fell in most emerging economies, where, as a group USD 228 of support was granted, per fisher, in 2016-18, a substantial decrease from USD 447 per fisher in 2012-14. The large difference in average levels of DSI/fisher between OECD countries and emerging economies partly reflects relatively lower levels of employment in the fishing industry.¹⁴ In 2016-18, the ratio of number of fishers per gt of fleet of fleet capacity was 0.3 at the OECD level, on average, while it was 0.9 at the level of emerging economies. Country-specific exceptions to these overall figures were Colombia (23.1), and to a lesser extent Mexico (1.0) and Chile (0.5) in the OECD,

where employment per gt was higher than the majority, and, Argentina (0.1), where it was considerably lower than in other emerging economies (Annex Figure 4.A.5).

Figure 4.6. Intensity of direct support to individuals and companies in the fisheries sector relative to the number of jobs in the sector in recent years



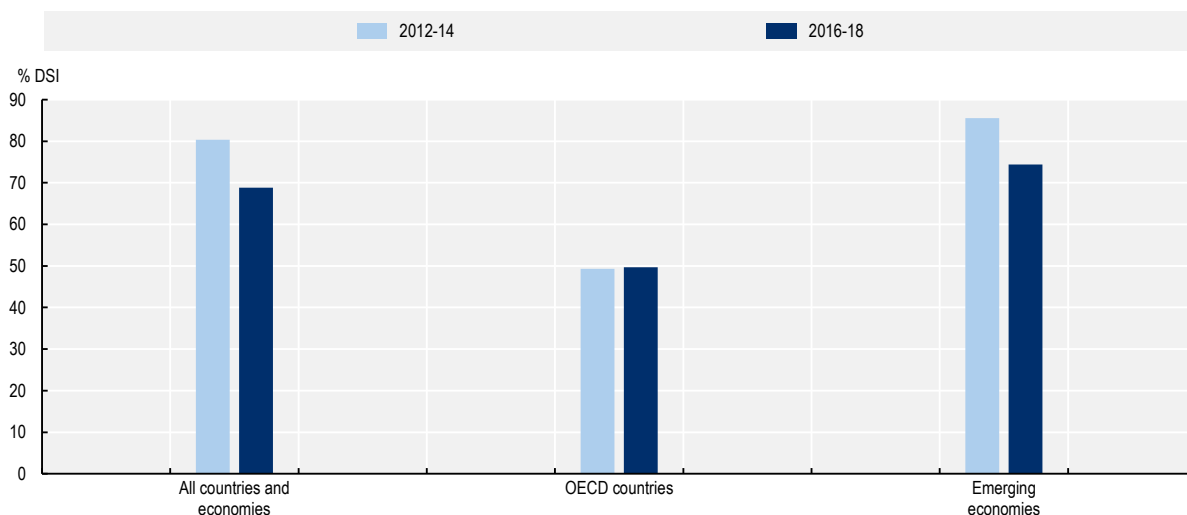
Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Employment' (OECD.Stat).

Direct support to fuel continues to account for the majority of direct support

DSI originates in a variety of policies. Some payments can be partially decoupled from fishing activities, such as income support and special insurance systems. Benefits can also be given in exchange for capacity reduction, such as through decommissioning schemes or payments for early retirement. Other policies are directed at lowering the cost of inputs. They include support for fuel, for other variable inputs (like payments to reduce the cost of ice or bait) and for fixed inputs (like payments for vessel construction and modernisation or the purchase of gear).

At the level of all countries and economies included in the FSE database, support directed at lowering the cost of inputs totalled USD 3.2 billion in 2016-18, accounting for 68.8% of reported DSI and 34% of total support. Support to fuel, alone, remains the single largest direct support policy both at the level of OECD countries and emerging economies. At the level of all countries and economies reporting to the FSE database, almost as much support is being provided to reducing the cost of fuel as is spent on management, control and surveillance (Figure 4.1).¹⁵ Furthermore, this may represent an underestimate, as some countries have fuel support policies that apply equally to fisheries and other sectors such as agriculture, and these countries and economies may not report these amounts to the FSE database considering that they are not fisheries-specific support policies.

Figure 4.7. Proportion of direct support to individuals and companies in the fisheries sector (DSI) that lowers the cost of inputs in recent years



Note: Support to fuel often being non-specific to fisheries, as the same policy sometimes also apply to other sectors such as agriculture, a number of countries and economies reporting to the FSE database do not include it in their reporting, which affects the relative total support to inputs.

Source: OECD dataset 'Fisheries Support Estimate (FSE)' (OECD.Stat).

The trend is however downwards, with the relative share of input support having fallen from 80.4% of DSI in 2012-14 (USD 6.9 billion) (Figure 4.7). This positive trend resulted from a reduction in the share of input support in DSI in emerging economies; where, however, this share remains much higher than in OECD countries on average. In emerging economies, the proportion of DSI lowering the cost of inputs was 74.4% in 2016-18 (USD 2.7 billion), having fallen from 85.6% in 2012-14 (USD 6.3 billion). This 11.2% reduction in relative contribution was despite absolute spending on DSI in the emerging economies having halved over the same period (Figure 4.5), and reflects a general shift away from policies to decrease fuel costs fuel in these countries. The magnitude of China's fisheries support means it dominates these reductions in absolute terms, as it accounts for just under 98% of the emerging economies' total for policies directed at lowering the cost of inputs. However, as shown in Annex Figure 4.A.7, comparable reductions are also observed in most other emerging economies that report this form of support (Brazil, Costa Rica, Malaysia).

Nonetheless, support for fuel remained the single largest form of support reported at the emerging economy level in 2016-18, making up 40.2% of total support (SSS + DSI), followed by support to vessels and gear and income support, which respectively account for 15.5% and 13.2% of the total. The increase in support to vessels and gear, albeit to a far smaller level, is potentially a cause of concern (Figure 4.1). Again, China's policies dominate the trend, with increasing support in this area of almost USD 0.5 billion between 2012-14 and 2016-18, while most other emerging economies reduced spending on vessels and gear (Indonesia by USD 46 million).

In OECD countries, altogether, the relative contribution of support to inputs remained stable, at 49.7% of DSI in 2016-18 (USD 0.5 billion) compared to 49.3% in 2012-14 (USD 0.6 billion), as spending in this area fell in-line with a relatively modest reduction in DSI more generally (Figure 4.5). The picture is far more mixed at the individual country level. About half of OECD countries reported that support to inputs comprised over 70% of total DSI. In most cases, these were the countries that reported support to fuel.

When considering support to fuel in terms of the value of landings, the picture is similar to that observed in absolute terms. In 2016-18, support to fuel as a proportion of landings value was lower and relatively stable for OECD countries (at 1.2%, compared to 1.3% in 2012-14) whereas it was higher but in decline for the emerging economies (at 4.0%, substantially down from 13.2% in 2012-14 – this change being entirely the result of China reducing the level of support to fuel). In those OECD countries that do not report zero for fuel support, support to fuel as a proportion of landings value was generally in excess of 10% (Annex Figure 4.A.7).

Conversely, annual support to inputs per fisher is, on average, significantly higher in OECD countries (USD 336) than in emerging economies (USD 122) (Figure 4.6).¹⁶ Support to fuel again dominates the picture, and, in some OECD countries, tens of thousands of USD per fisher are reported (Annex Figure 4.A.7). Given the unequal nature of reporting support to fuel, extreme care should be taken in interpreting differences across countries.

Partially decoupled payments on average account for just under a quarter of spending on DSI

For all countries and economies in the FSE database, partially decoupled payments (income support and special insurance systems), accounted for an average of 22.3% of spending on DSI, per year, in 2016-18 (USD 1.0 billion). This is an increase in terms of its relative contribution, from 15.9% (USD 1.4 billion) in 2012-14, despite a reduction in actual levels of spending.

At the OECD level, partially de-coupled payments accounted for 36.7% of spending on DSI in 2016-18 (USD 0.4 billion), also up in relative terms from 31.4% (USD 0.4 billion) in 2012-14, but unchanged in terms of absolute spending. The picture was mixed at the country level, with some countries reporting notably higher proportions of de-coupled payments in their DSI in 2016-18: Canada (100% stemming from support to income), the United States (97%, stemming from support to insurance) and Germany (63%, stemming from support to income) (Annex Figure 4.A.6). In contrast, seven countries did not report any de-coupled payments, and, in others, this form of support accounted for no more than 27% of DSI in all but one case (Portugal 41%).

For the emerging economies, partially de-coupled payments represented 18.1% of spending on DSI, per year, in 2016-18 (USD 0.7 billion), again up in relative contribution, from 13.3% (USD 1.0 billion) in 2012-14, but down in absolute terms. Country level data is somewhat mixed, with Viet Nam, Indonesia and Brazil all reporting proportions at or close to 100%.

Support that is partially decoupled from fishing activities is potentially the least harmful DSI for sustainability and the most directly beneficial to fishers. Upwards trends in their proportional contributions to DSI at the level of both the OECD and emerging economies are thus encouraging. However, while there are exceptions, predominantly in the individual countries identified above, the amounts reported are generally relatively low in absolute terms. In most cases they are also second to support lowering the cost of inputs, which are, conversely, those that are most likely harmful to sustainability and the least effective at supporting individual fishers.

Finally, payments to reduce fishing capacity, such as decommissioning schemes or payments for early retirement, accounted for an average of 7.3% of spending on DSI by all countries and economies in the FSE database in 2016-18 (USD 0.3 billion), up from 2.9% in 2012-14 (USD 0.3 billion). This overall trend reflects contrasting developments in the OECD and in emerging economies. At the OECD level, payments aiming to reduce capacity accounted for an average of 8.5% of spending on DSI in 2016-18 (USD 0.1 billion), down from the 15.9% observed in 2012-14 (USD 0.2 billion). In emerging economies, they accounted for an average of 7.0% of DSI in 2016-18 (USD 0.3 billion), an increase from 0.8% in 2012-14 (USD 0.1 billion) that was driven by an almost USD 0.2 billion increase in spending on capacity reduction by China (offsetting a USD 1.5 million reduction in Chinese Taipei). Such support fell in absolute

terms in most other countries and economies in the FSE database, but continues to represent the majority of DSI in a number of them (Greece, Australia, Italy, Spain, Japan). Policies such as decommissioning schemes have been found to be ineffective in reducing capacity in many instances. If not carefully planned and implemented, as a component of comprehensive policy reform, there is a significant risk of the capital re-entering the industry and ultimately increasing capacity (Parker et al., 2018^[5]; OECD, 2009^[10]). Increases in these forms of support consequently represent potential risks to sustainability.

4.4. Support to fisheries and agriculture

Policy makers face a number of similar objectives and constraints when designing support policy packages for fisheries and for agriculture, given that both sectors combine labour, capital and natural resources to deliver food. Reflecting these common challenges, 60% of countries that replied to a recent survey on governance of the fisheries sector reported that both agriculture and fisheries are led by the same authority (Chapter 5).¹⁷

Recent OECD work has formulated objectives and constraints as a “triple challenge for the global food system”: to ensure food security and nutrition for all; provide livelihoods to food producers; and to do all this while using natural resources sustainably, limiting ecosystem and biodiversity impact as well as greenhouse gas emissions as much as possible and meeting other societal expectations such as animal welfare or cultural preferences (OECD, 2020^[11]). The agricultural sector is therefore also faced with the challenge of re-directing support to least environmentally harmful and economically less-distorting policies (Henderson and Lankoski, 2019^[12]) while accompanying such support policy re-orientation with environmental regulation to tackle the negative environmental externalities and maximise the societal benefits of the food system (OECD, 2020^[13]). A comparison of the level and structure of support across the two sectors sheds some light on differences in the way in which these common challenges are being addressed.

Support for services to fisheries and agriculture

The OECD uses a Total Support Estimate (TSE) framework for measuring and classifying support to agriculture. On this basis, the OECD agricultural policy monitoring and evaluation (most recently reported in (OECD, 2020^[14])) provides insights into the complex nature of agricultural support policy.

In this framework, the General Services Support Estimate (GSSE) is akin to the SSS in the FSE database. It covers payments to eligible private or public services provided to agriculture generally, where primary agriculture is the main beneficiary. They notably include payments to finance agricultural knowledge and innovation, training, food inspection and control, infrastructure, marketing and promotion, as well as public stockholding of food reserves. Just like SSS, the GSSE contains some elements of what economists would identify as investments in public goods and common resources – notably in relation to knowledge building and preserving biodiversity, resources and eco-systems, but there is heterogeneity within both GSSE and SSS and not all expenditures in these categories meet these definitions.

For comparability, indicators of support to services to fisheries and agriculture are considered relative to the value of production (value of landings for fisheries), whereby:

- $GSSE/prod\ value = GSSE / \text{value of agricultural production}$
- $SSS/prod\ value = SSS / \text{value of landings}$

Box 4.4. The OECD database on support to agriculture

The OECD has developed agriculture support indicators that express agricultural policy measures with numbers in a comparable way across time and between countries. Agricultural support is defined as the annual monetary value of gross transfers to agriculture from consumers and taxpayers, arising from governments' policies that support agriculture, regardless of their objectives and their economic impacts.

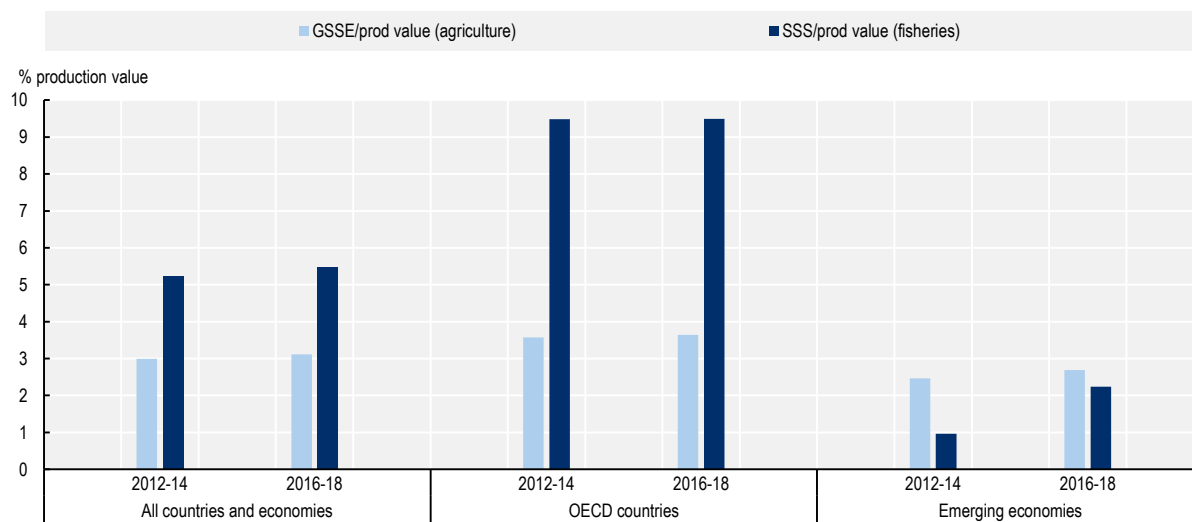
- **Total Support Estimate (TSE)** transfers consist of:
 - Transfers to agricultural producers measured by the **Producer Support Estimate (PSE)**, which include, market price support, budgetary payments and the cost of revenue foregone by the government and other economic agents.
 - Transfers to consumers of agricultural goods measured by the **Consumer Support Estimate (CSE)**
 - Support to general services to agricultural sector measured by the **General Services Support Estimate (GSSE)**.
- The **Percentage Total Support Estimate indicator (%TSE)** represents the total of policy transfers to agricultural sector expressed as a share of GDP.
- The **Percentage Producer Support Estimate (%PSE)** represents policy transfers to agricultural producers, measured at the farm gate and expressed as a share of gross farm receipts.
- The OECD database of agricultural support covers 37 OECD countries and the five non-OECD EU Member States, as well as twelve emerging economies: Argentina, Brazil, China, Costa Rica, India, Indonesia, Kazakhstan, the Philippines, the Russian Federation, South Africa, Ukraine, and Viet Nam

Source: (OECD, 2020^[14]).

At the level of the 33 countries and economies included both in the FSE and PSE databases,¹⁸ for fisheries, the SSS/prod value was 5.5% in 2016-18, essentially unchanged from 2012-14. For agriculture, the GSSE/prod value was 3.1% in 2016-18, slightly up from 3.0% in 2012-14. For both fisheries and agriculture, support for services as a share of production value is, on average, greater at the level of OECD countries than at the level of emerging economies over the period assessed, but that difference is much more pronounced for fisheries than for agriculture (Figure 4.8).

While the SSS/prod value is considerably higher than the GSSE/prod value for the OECD countries as a whole in all periods considered, at the level of emerging economies, on average, GSSE/prod is moderately higher. In fact, the pattern for emerging economies is the result of a large differential between GSSE/prod and SSS/prod in Indonesia, compensating for relatively greater SSS/prod in other emerging economies (Annex Figure 4.A.9). Among OECD countries, Korea is a notable exception, as the GSSE/prod largely outpaces SSS/prod. Furthermore, while support for services as a share of production value at the level of emerging economies has increased for both fisheries and agriculture, the rate of increase in the SSS/prod value has outpaced that of the GSSE/prod value, resulting in the convergence in the two figures in 2016-18 (Figure 4.8).

Figure 4.8. Support for services to agriculture and fisheries as a share of their respective production value in recent years



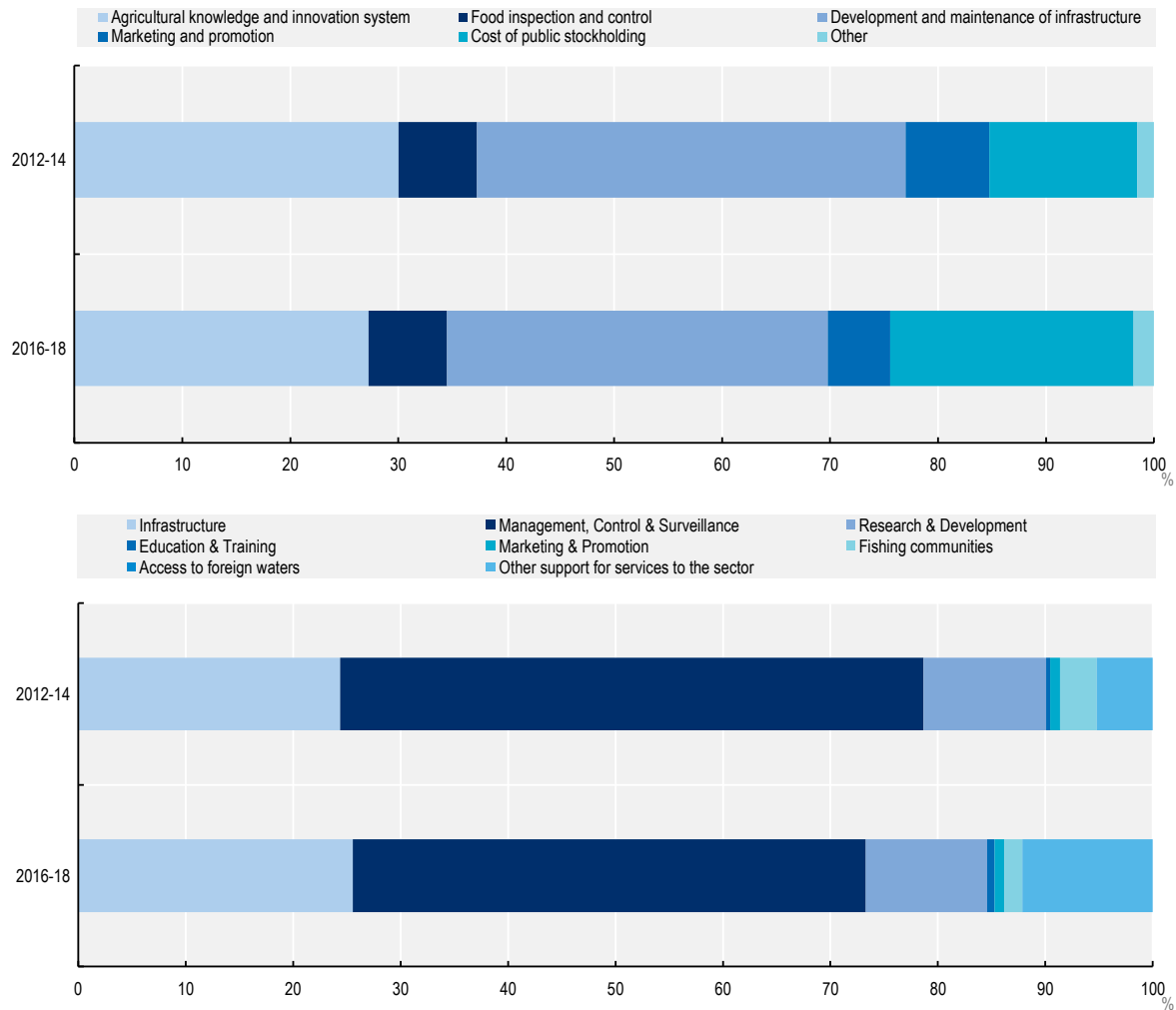
Note: For fisheries, production value corresponds to the value of landings

Source: OECD dataset 'Fisheries Support Estimate (FSE)', 'Marine landings, 'Producer and Consumer Estimates' (OECD.Stat).

For agriculture, the areas of biggest spending on services are infrastructure and research and development (labelled 'agricultural knowledge and innovation system' in the PSE classification), which respectively account for 35.3% and 27.3% of GSSE in 2016-18 on average. The share of spending on research and development has however decreased since 2012-14, while spending on public stockholding increased significantly to make up 22.6% of GSSE in 2016-18 (Figure 4.9).

For fisheries, as described in Section 4.3.2, nearly half of SSS in fisheries went to management, control, and surveillance in 2016-18. This reflects the costly nature of tracking what is happening at sea, something that is key to fisheries and ocean sustainability. On the other hand, spending on infrastructure and research and development is constantly lower than GSSE, even if support to education and training is added to the latter in an analogy with how support is classified in the GSSE. Moreover, on average, the share of services support to marketing and promotion is much larger for agriculture¹⁹ – 13.5% in all periods considered, compared with only 0.9% for fisheries.

Figure 4.9. The composition of support for services to agriculture (top) and fisheries (bottom) in recent years



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Producer and Consumer Estimates' (OECD.Stat).

Budgetary direct support to fisheries and agriculture

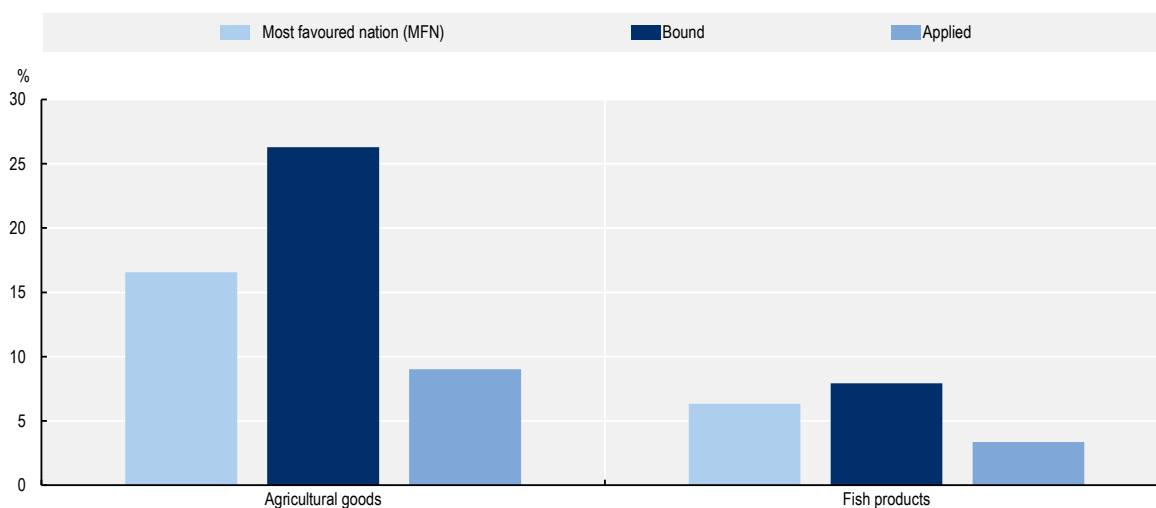
The PSE component of the TSE framework reports government support that accrues directly to individuals or businesses in agriculture, equivalent to the fisheries DSI. One key difference is however that the PSE also accounts for market price support (MPS), which is the monetary value of support stemming from a range of trade and domestic policies that materialize in price differentials at the border. Trade policies generating MPS include tariffs, but also non-tariff measures (NTMs), which affect the price of traded products and the quantities traded, including regulations related to sanitary and phytosanitary (SPS) requirements and technical barriers to trade (TBT), which set specific requirements for products to be sold in a given market.²⁰ Domestic policies generating MPS include those that affect industry organisation and competition, as well as marketing and price regulations. The FSE database currently does not include an MPS component because comparing “like with like”, in terms of prices, is particularly difficult for fish products – in particular because of their variety and the price implications of certain product characteristics

(for example whether the fish were caught or raised on an aquaculture farm), which are not easily tractable in trade data at present.²¹

When all countries and economies included both in the FSE and PSE databases are considered, MPS accounted for about 56% of direct support to agriculture in 2016-18 (stable compared to 2012-14). On average, tariffs imposed on fish products are lower than those imposed on agricultural products – whether most favoured nation (MFN), bound or applied tariffs are considered (Figure 4.10). This suggests that MPS is likely to be of lower magnitude for fish products.

However, as stated above, MPS also depends on NTMs, on domestic policies that generate price gaps, and on the extent to which products are tradable. The relevance of NTMs to trade in agricultural and food products was recently investigated by the OECD (OECD, 2020^[15]). For animal products (including fish products), it was found that SPS and TBT requirements, as well as quantity control measures have the greatest impact on traded prices, and the impact of these types of NTMs are, on average, higher than for other agricultural products (vegetables and fruits, fats and oils, and processed foods). Available data however does not allow comparing the effect of NTMs on fish products and other animal products (such as live animal, meats, dairy products, eggs and honey). To our knowledge, there is also no evidence of the extent to which domestic policies might imply induced price support for fisheries products. Further work is thus needed to investigate the extent to which MPS is an issue for fish value chains, and how it compares between land-based and water-based food products.

Figure 4.10. Tariffs on agricultural goods and fish products, 2018



Note: The 'MFN tariff' is the non-discriminatory tariff charged on imports from other members of the WTO, excluding preferential tariffs under free trade agreements (FTAs). The 'bound tariff' represents specific levels beyond which WTO members committed not to increase the MFN tariffs. The 'applied tariff' accounts for preferential tariffs under FTAs.

Agricultural goods refer to the WTO definition, and fish products include all products in chapter 03 of the HS classification (this includes both products from fisheries and from aquaculture, which are not distinguished). Tariffs are weighted according to products' share in the total imports of all countries. Tariffs also include ad valorem equivalents of non-*ad valorem* import duties.

Source: Tariff dataset (WITS - World Integrated Trade Solution).

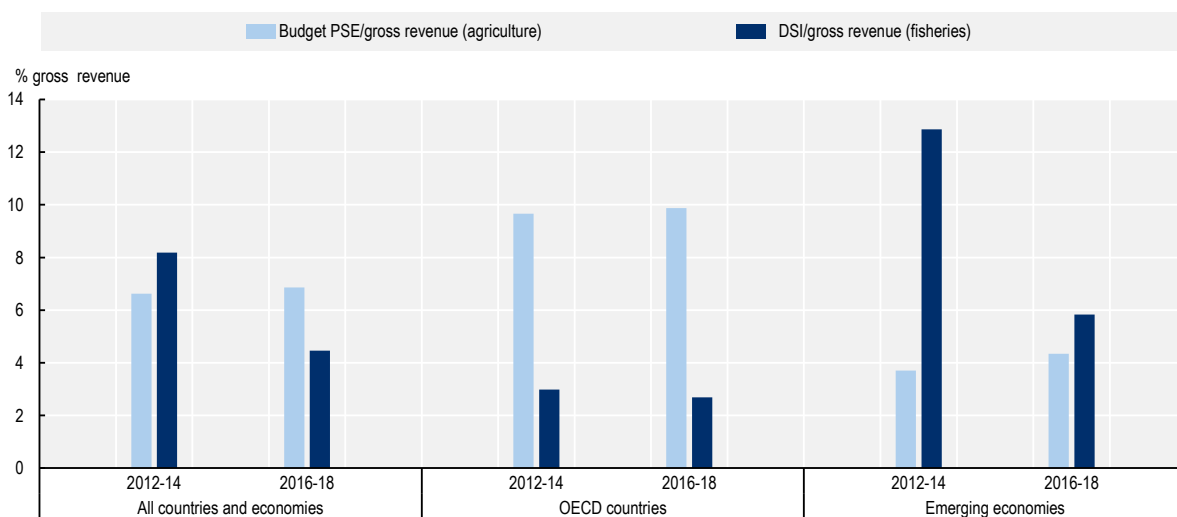
In what follows, for comparability, the MPS component of the PSE is not considered. The comparison between direct support to fisheries and agriculture focuses on budgetary support (including tax exemptions). The indicators are also considered relative to each sector's gross revenue, whereby

- Budget PSE/gross revenue = PSE net of MPS / (value of agricultural production + PSE net of MPS)
- DSI/gross revenue = DSI / (value of landings + DSI).

At the level of all countries, for fisheries the DSI/gross revenue was 4.5% in 2016-18, having almost halved from 8.2% in 2012-14. In agriculture, the budget PSE/gross revenue was 6.9% in 2016-18, up from 6.6% in 2012-14.

For the OECD countries as whole, the budget PSE/gross revenue exceeds the DSI/gross revenue in all periods considered, while the opposite picture is seen at the level of emerging economies, where the DSI/gross revenue is consistently highest. Furthermore, DSI/gross revenue has been trending down in both country groups over the period assessed, but the reverse is observed for agriculture, where budget PSE/gross revenue has increased at both the OECD and emerging economies levels, reflecting a decoupling of support in several countries. Among OECD countries, Canada, Colombia, and Turkey stand as exceptions, with DSI/gross revenue largely outpacing budget PSE/gross revenue. Among the emerging economies, Indonesia is also an exception, with PSE/gross revenue largely outpacing DSI/gross revenue.

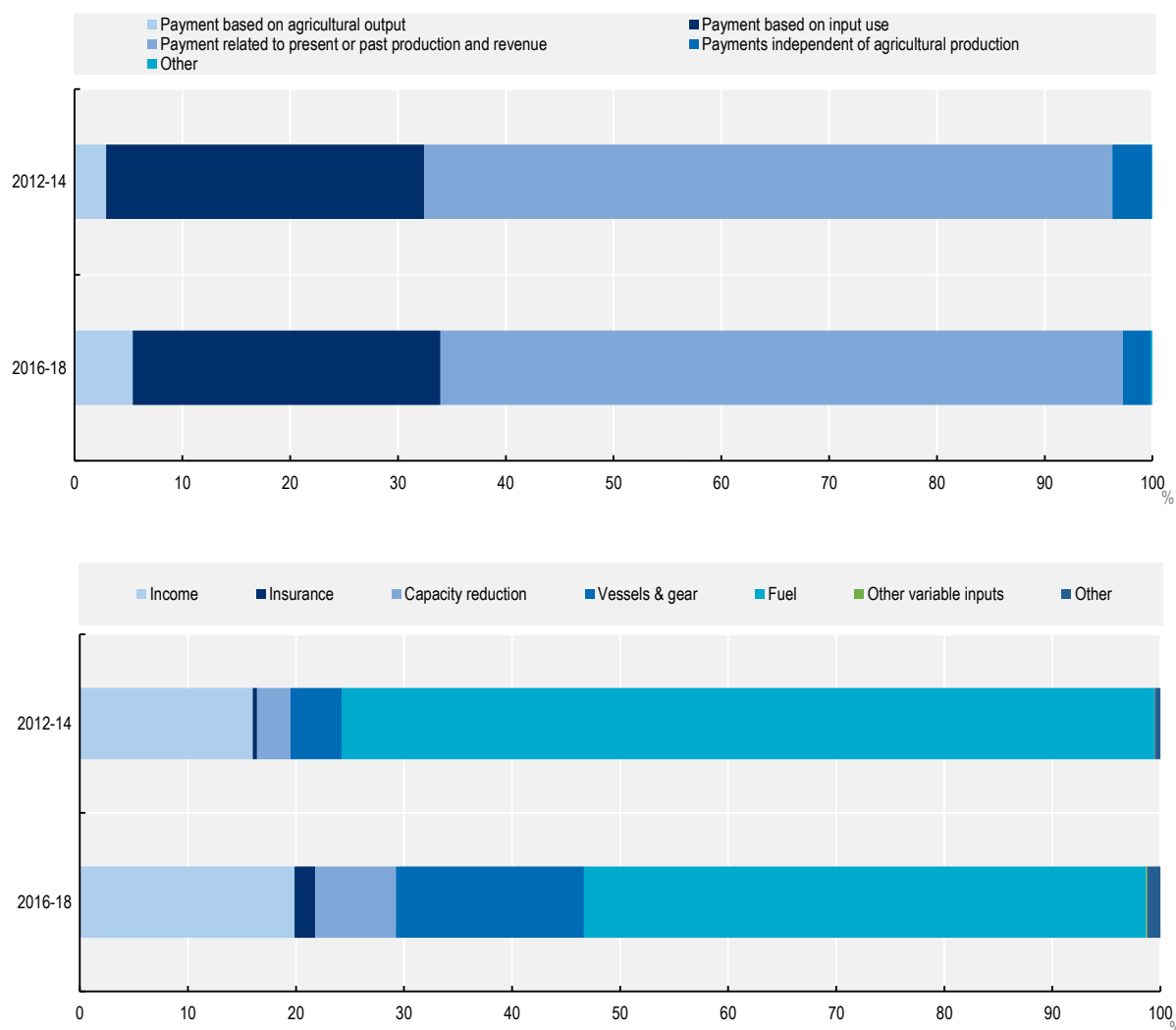
Figure 4.11. Direct budgetary support to agriculture and fisheries as a share of their respective gross revenue in recent years



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Marine landings', 'Producer and Consumer Estimates' (OECD.Stat).

As discussed in Section 4.3.3, for fisheries, direct support has seen a move away from policy support to fuel, particularly in China and other emerging economies as well as an upwards trend in the relative rate of transfers that are partially de-coupled from fishing activities, such as income support and special insurance systems, at the level of all countries and economies in the FSE database. Conversely, the composition of budgetary direct support to agriculture has remained relatively unchanged over the period assessed (Figure 4.12), suggesting a slowdown in agricultural support policy reforms that is also confirmed by data covering the past decade, especially in OECD countries (OECD, 2020^[14]).

Figure 4.12. The composition of budgetary support to agriculture (top) and fisheries (bottom) in recent years



Note: For agriculture, the budgetary support shown is budget PSE (net of MPS)

Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Producer and Consumer Estimates' (OECD.Stat).

4.5. Conclusion

Government support to the fisheries sector seeks to pursue a range of objectives, which include maintaining coastal employment, improving fishers' welfare and ensuring the sustainability of an important food sector. In pursuit of these objectives, some types of government support to fisheries, in particular contexts, can also build excess fishing capacity, lead to unsustainable fishing and ultimately harm fish resources and their ecosystems. When this happens, support becomes detrimental to the resilience of the very sector government is trying to help. In addition, some policies do not always address their socio-economic objectives in an efficient or equitable way.

Analysing the current support policy mixes being used, their magnitude, the context in which they are being applied, and their potential impacts in terms of different policy objectives, this chapter has identified priorities to reform fisheries support policies such that, at a minimum, they should not compromise the sustainable use of resources, in line with SDG 14 objectives. It has also found room for redirecting support to achieve greater effectiveness and equity in supporting those in need in the fisheries sector.

Between 2012-14 and 2016-18, the total average annual support reported to the OECD FSE database has decreased to about 10% of the average value of landings (down from 13.8%). This resulted from a significant reduction in direct support to individuals and companies, which almost halved in US dollar terms between 2012-14 and 2016-18. The share of this direct support that reduces the cost of inputs, which generally has the worst potential impact in terms of sustainability and the lowest efficiency in transferring income to fishers, fell from 80% to 69%. An important driver of these trends was a reduction in support to fuel for fisheries in China, the country with the world's largest fisheries sector. Similar trends were seen in a number of other countries and economies.

Over 2016-18, however, on average, USD 3.2 billion was still spent annually to lower the cost of inputs (in particular fuel and vessels). Support to fuel, alone, on average remains the single largest direct support policy, accounting for 25% of total support to the sector. Conversely, less than a third of that amount (USD 1.0 billion) was granted in support that is partially de-coupled from fishing activities – such as income support and special insurance systems – which are potentially less harmful for sustainability and the most directly beneficial to fishers.

Moving support policies away from those that support inputs towards those that help fishers operate their businesses more effectively and increase their profitability, would reduce negative impacts on the biological sustainability of fish resources, increase fisher welfare and the quantity of fish produced, and reduce inequitable effects across fleet segments.

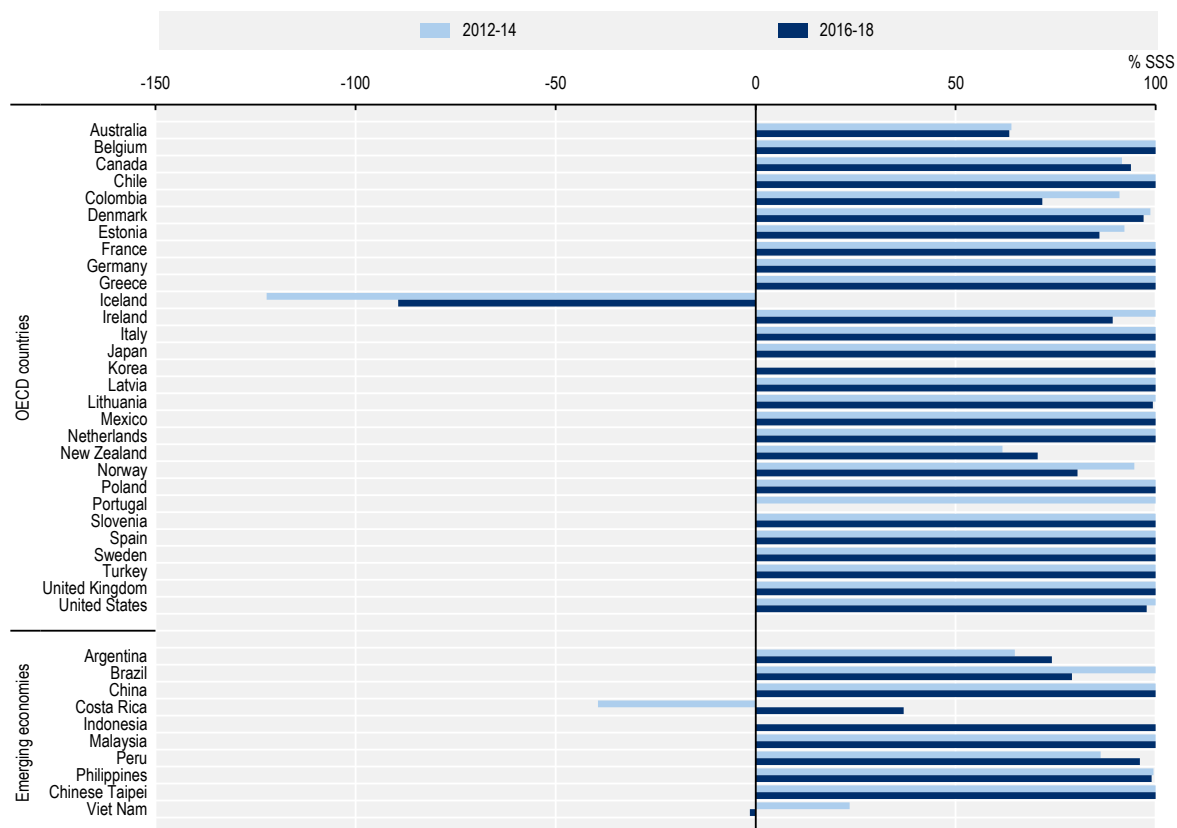
Another key area of concern is how the intensity of spending on services to the fisheries sector, relative to fleet size, has evolved in some countries. Between 2012-14 and 2016-18, the intensity of support to infrastructure – which can encourage overcapacity and fishing – has increased in some countries. At the same time, the intensity of spending on management, control and surveillance – which is essential to enforce sustainable fishing practices and prevent illegal fishing from taking place – has fallen substantially in a number of countries.

Effectively managing fisheries that remain uncontrolled, including in the high seas, and eradicating illegal fishing is essential if support policy reforms are to effectively contribute to domestic and shared international goals. Support is better at achieving its socio-economic goals under effective systems of fisheries management while weak management compounds the negative effects of policies that encourage overfishing and other unsustainable practices.

Finally, reforms to fisheries support policies – in common with agricultural support reforms – also have the potential to contribute to wider objectives for food systems, which include providing food security and nutrition, generating economic opportunities along the food chain, and limiting the environmental footprint of food production. They are key components of policy efforts to improve well-being in coastal areas (in similar ways as agricultural policy reform is key to improve well-being in rural areas) and have the potential to contribute SDGs beyond SDG14, in particular those relating to climate, poverty and food.

Annex 4.A. Country-level support data on selected types of support policies

Annex Figure 4.A.1. Proportion of spending on services to the fisheries sector (SSS) funded by public money in recent years

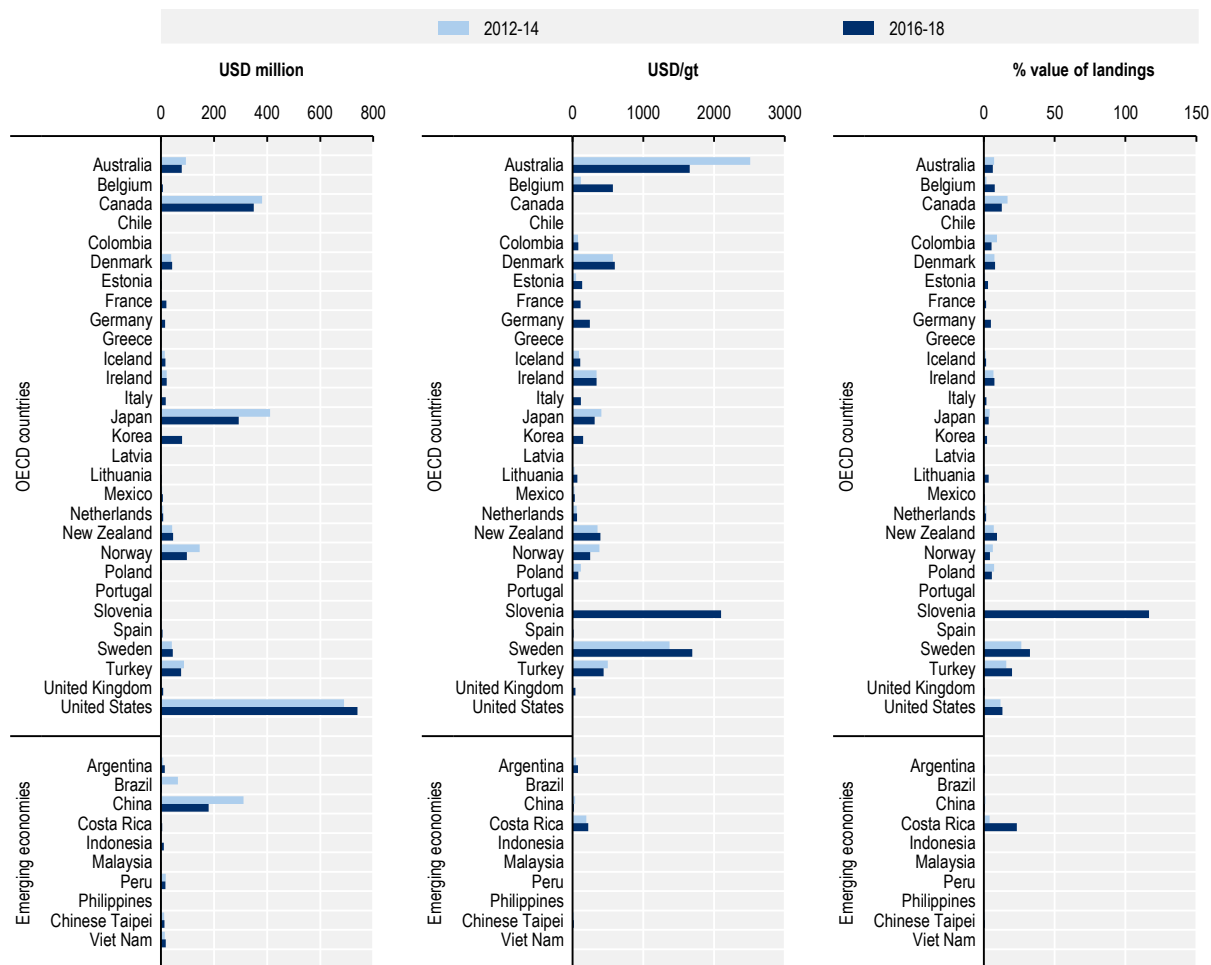


Note: The spending on SSS funded by public money are those that are not offset by payments made by the sector.

Source: OECD dataset 'Fisheries Support Estimate (FSE)' (OECD.Stat).

Annex Figure 4.A.2. Support to management, control and surveillance in recent years

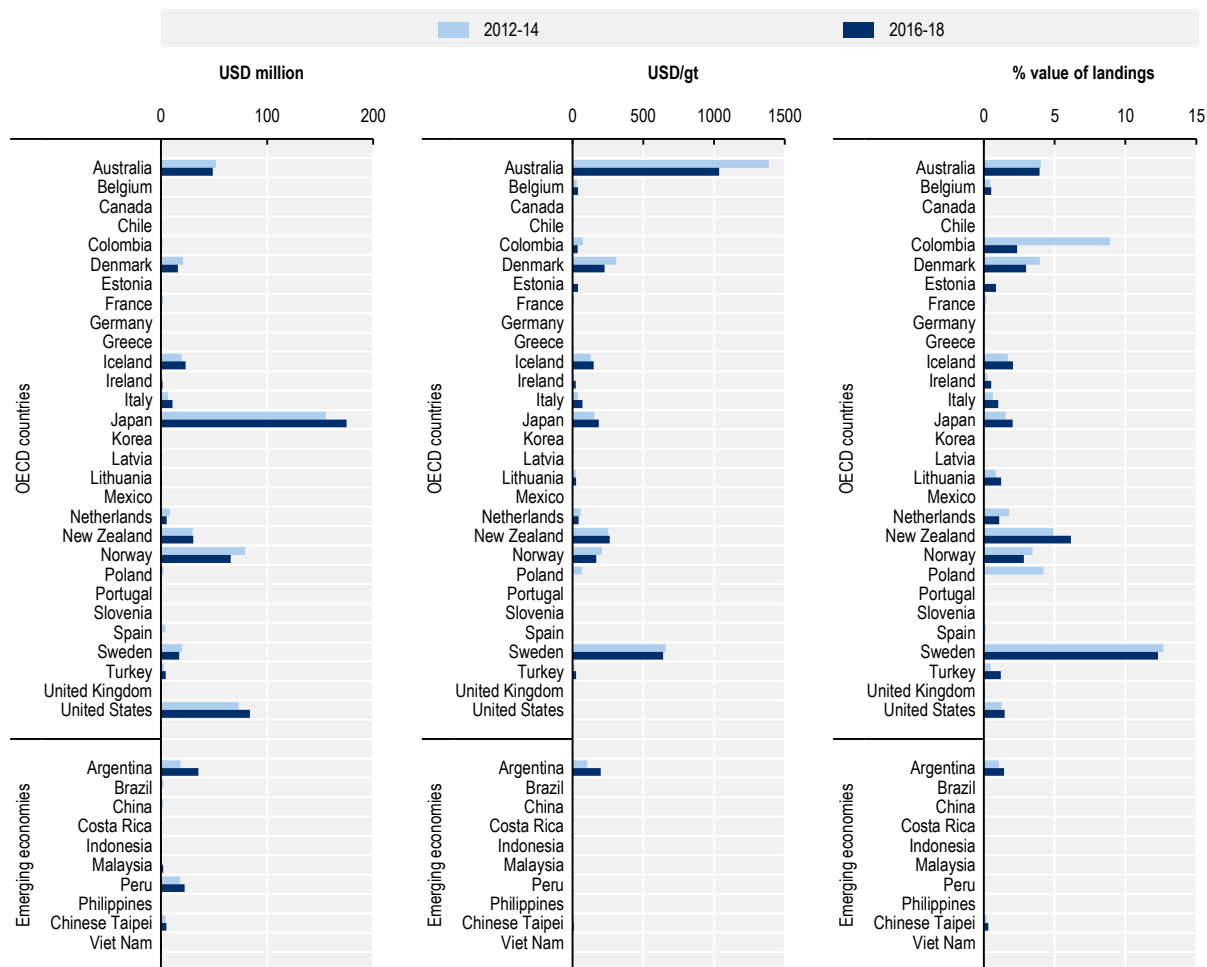
Absolute terms (left), by gross ton of fleet capacity (middle) and in proportion of the value of landings (right)



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Fishing fleet', 'Marine landings' (OECD.Stat).

Annex Figure 4.A.3. Support to research and development in recent years

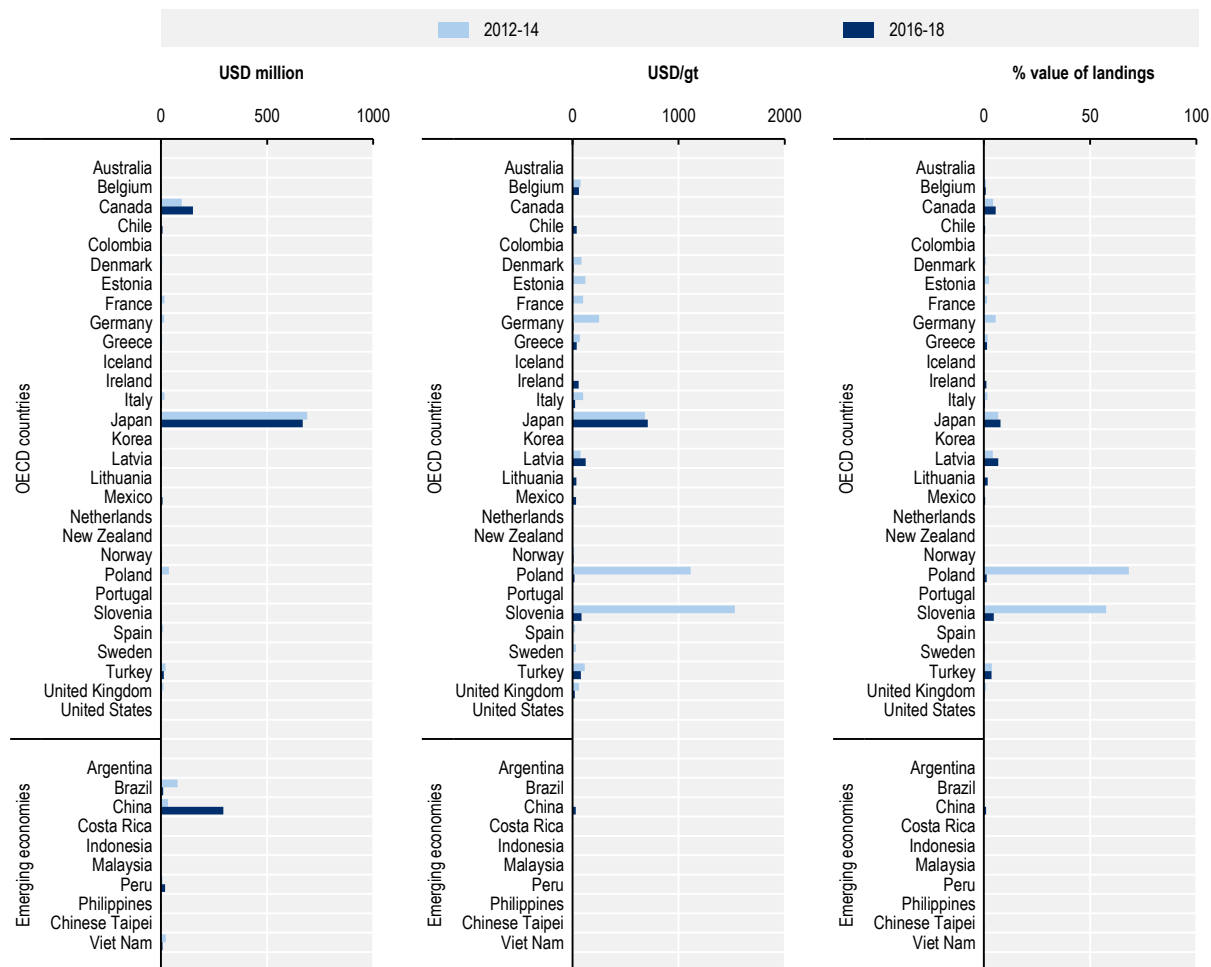
Absolute terms (left), by gross ton of fleet capacity (middle) and in proportion of the value of landings (right)



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Fishing fleet', 'Marine landings' (OECD.Stat).

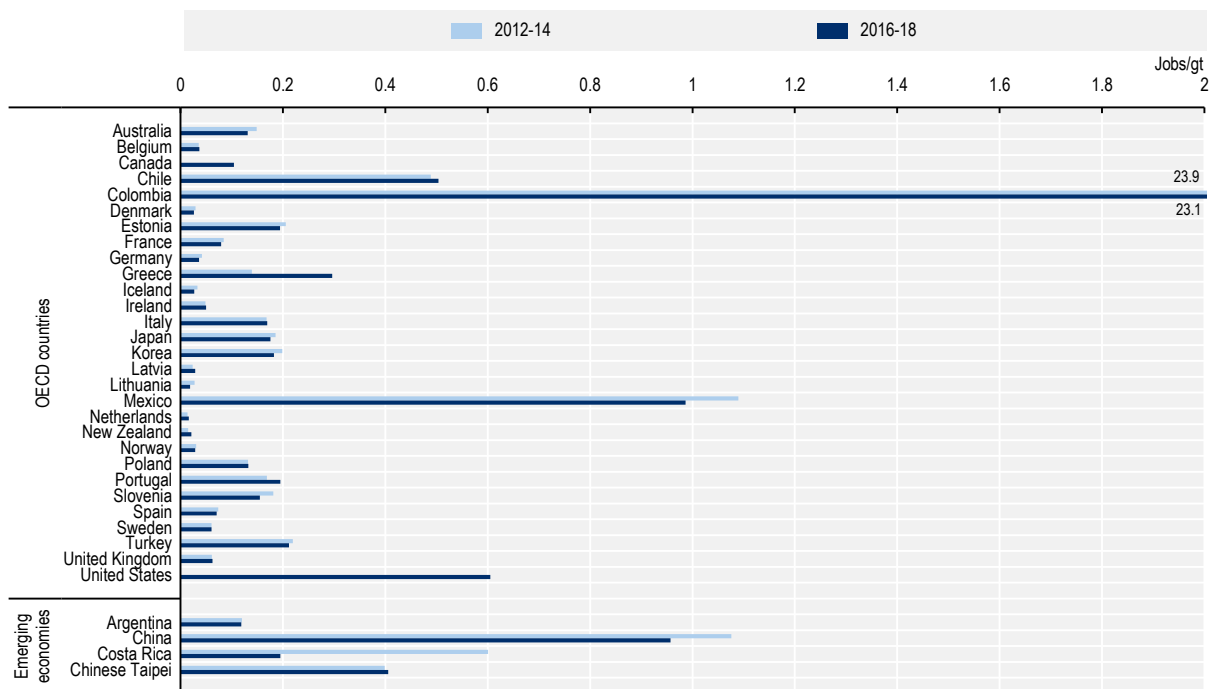
Annex Figure 4.A.4. Support to infrastructure in recent years

Absolute terms (left), by gross ton of fleet capacity (middle) and in proportion of the value of landings (right)



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Fishing fleet', 'Marine landings' (OECD.Stat).

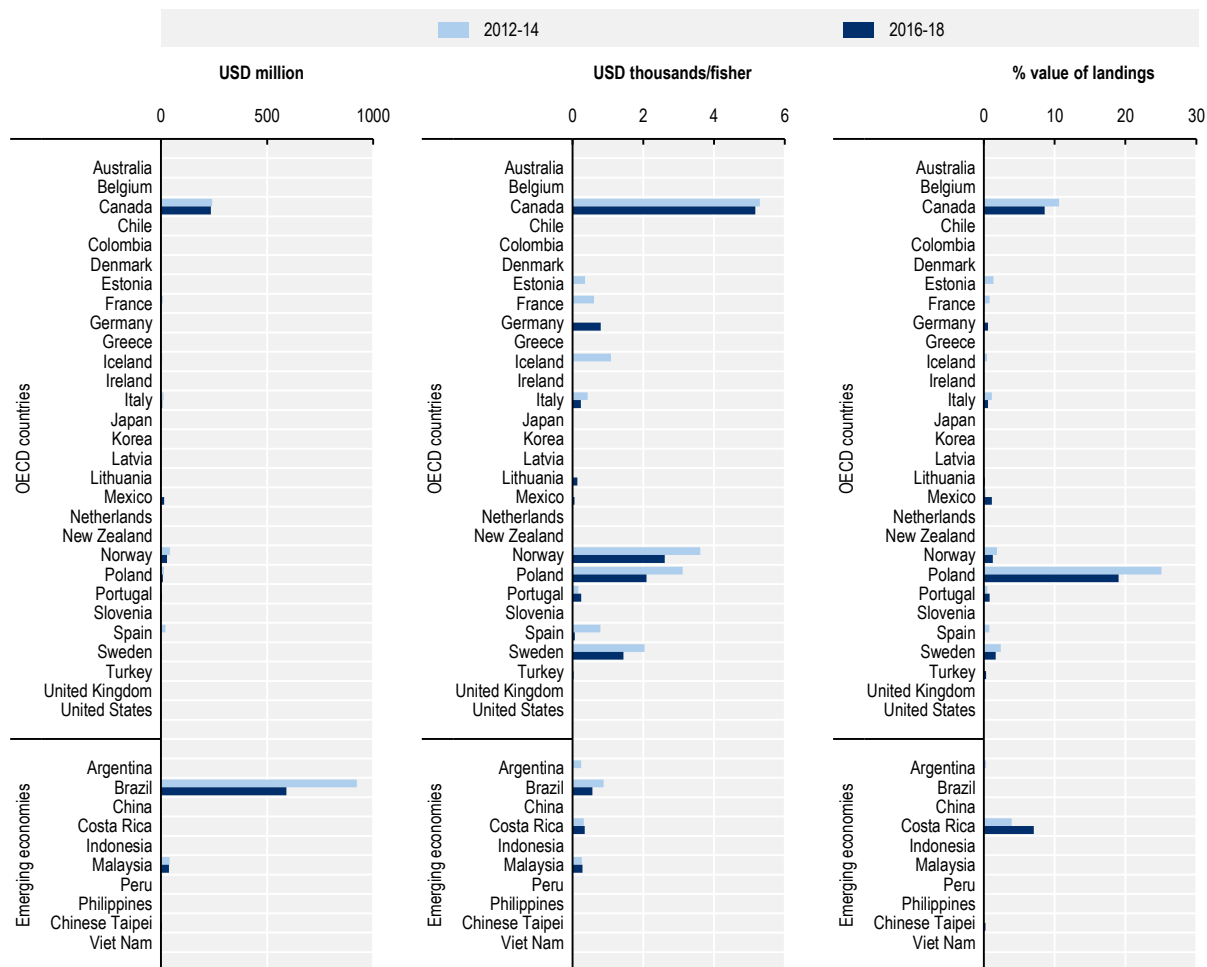
Annex Figure 4.A.5. Ratio of labour to capital in fisheries in recent years



Source: OECD datasets 'Fishing fleet', 'Employment' (OECD.Stat).

Annex Figure 4.A.6. Support to income in recent years

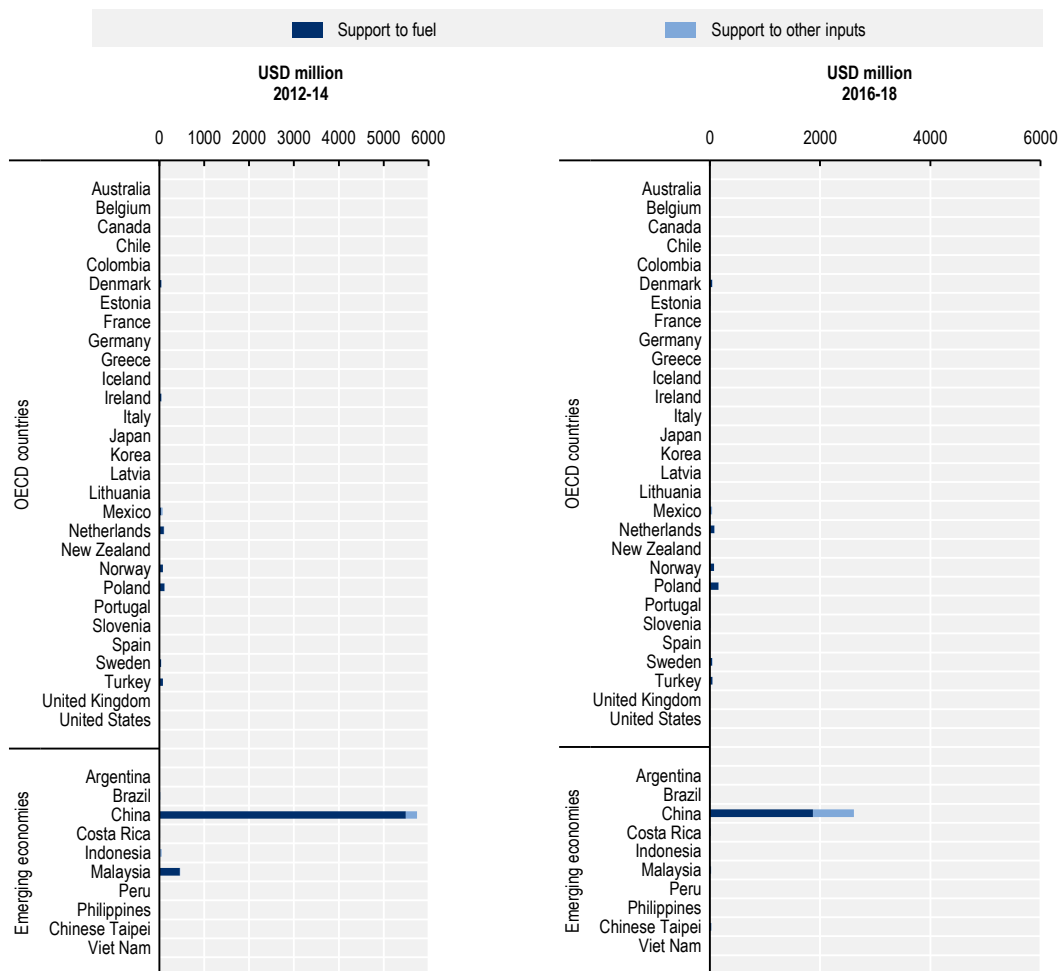
Absolute terms (left), relative to the number of fishers (middle) and in proportion of the value of landings (right)



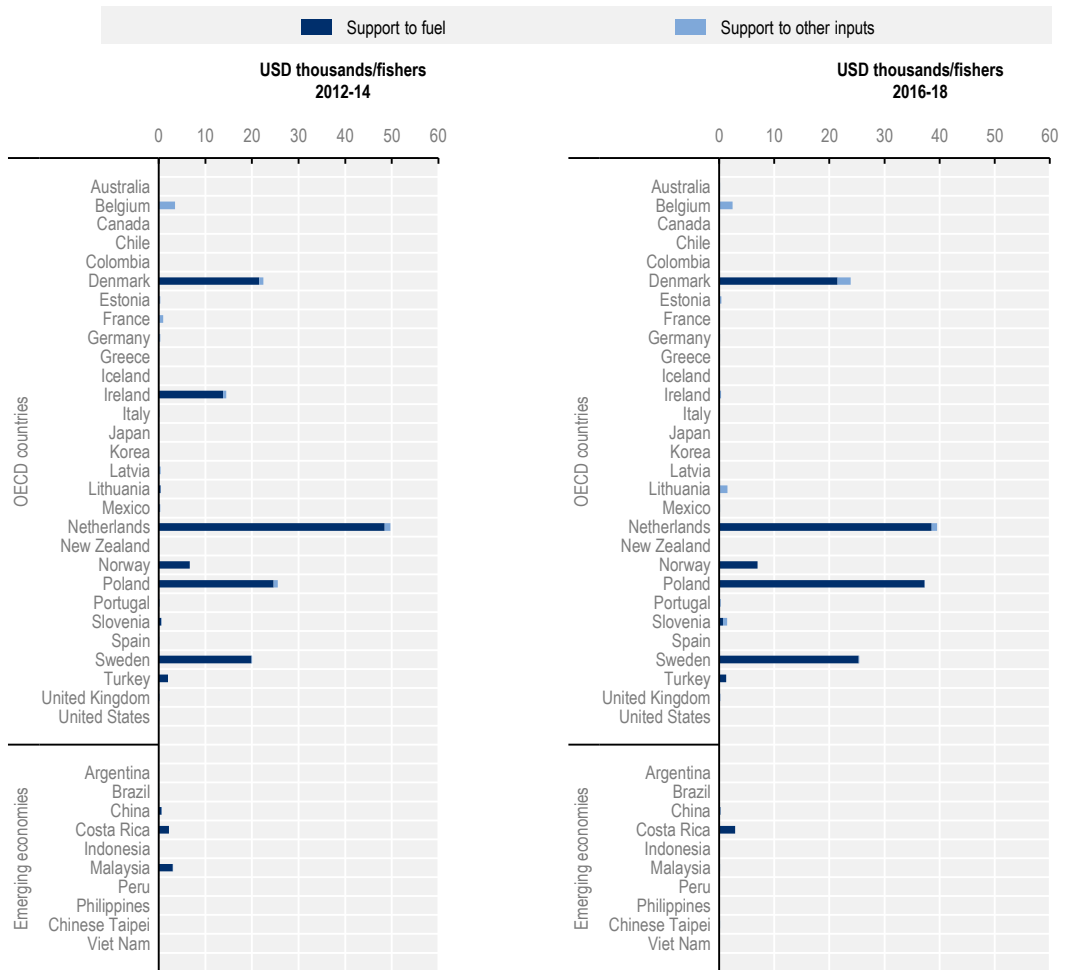
Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Employment', 'Marine landings' (OECD.Stat).

Annex Figure 4.A.7. Support to fuel and other (fixed and variable) inputs

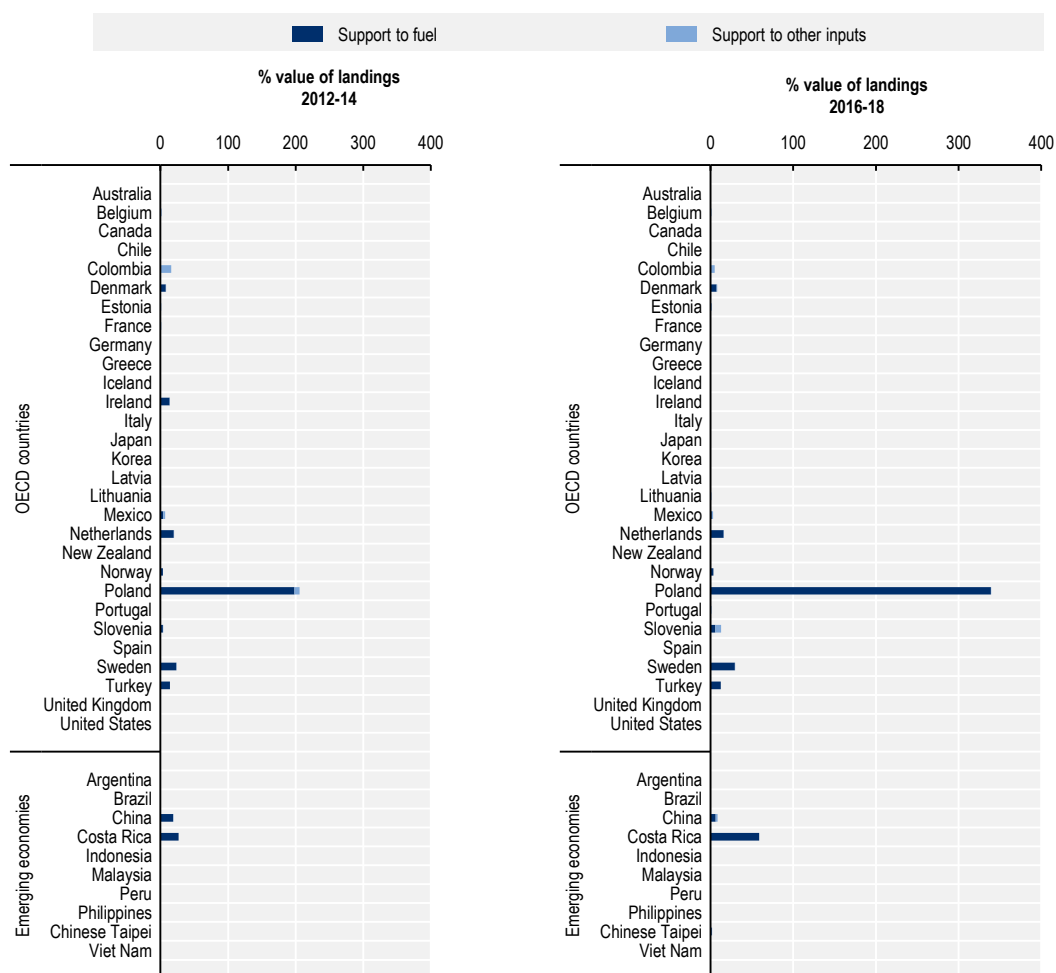
In absolute terms



By number of fishers



In proportion of the value of landings



Note: Support to fuel often being non-specific to fisheries, as the same policy sometimes also apply to other sectors such as agriculture, a number of countries and economies reporting to the FSE database do not include it in their reporting.
 Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Employment', 'Marine landings' (OECD.Stat).

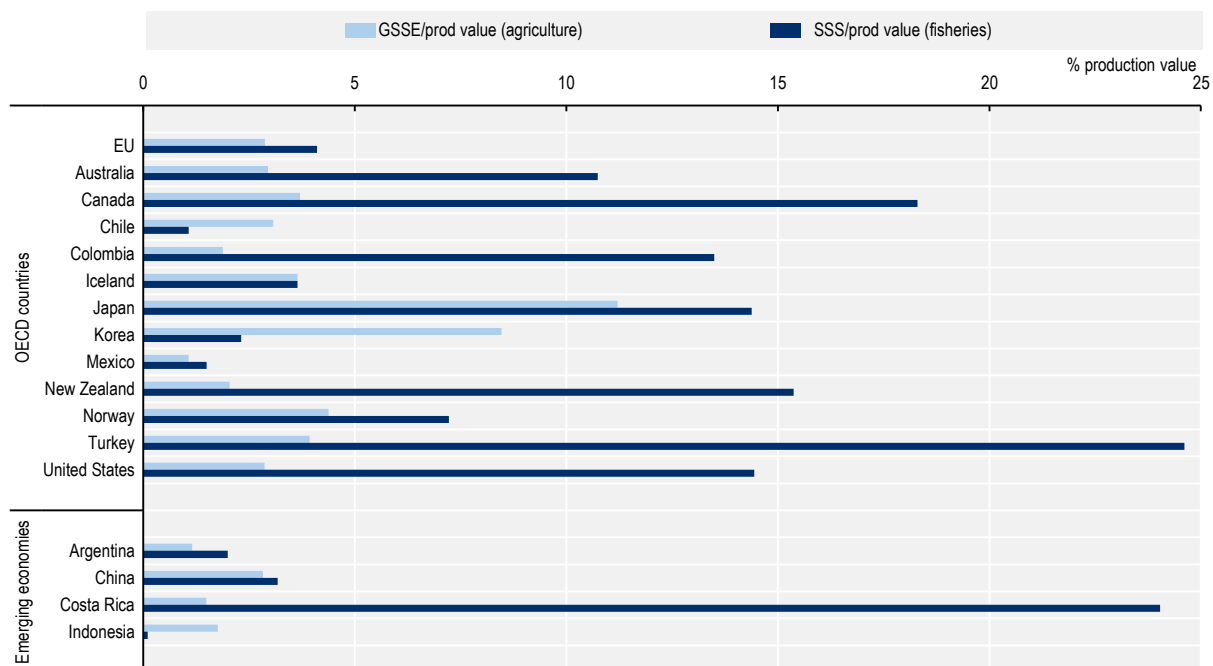
Annex Figure 4.A.8. Support for capacity reduction in recent years

Absolute terms (left), relative to the number of fishers (middle) and in proportion of the value of landings (right)



Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Employment', 'Marine landings' (OECD.Stat).

Annex Figure 4.A.9. Support for services in agriculture and fisheries as a proportion of the value of production, 2016-18



Note: Following what is done in the PSE database, a single figure is computed for countries of the European Union. For fisheries, the value of production corresponds to the value of landings.

Source: OECD datasets 'Fisheries Support Estimate (FSE)', 'Marine landings', 'Producer and Consumer Estimates' (OECD.Stat).

References

- Beghin, J. et al. (2012), *Welfare Costs and Benefits of Non-tariff Measures in Trade: A Conceptual Framework and Application*. [17]
- Burgess, M. et al. (2018), “Protecting marine mammals, turtles, and birds by rebuilding global fisheries”, *Science*, Vol. 359/6381, pp. 1255-1258, <http://dx.doi.org/10.1126/science.aao4248>. [6]
- Delpuech, C. and B. Hutniczak (2019), *Encouraging policy change for sustainable and resilient fisheries*, OECD Publishing, <https://doi.org/10.1787/31f15060-en>. [19]
- FAO (2020), *The State of World Fisheries and Aquaculture 2020*, FAO, <http://dx.doi.org/10.4060/ca9229en>. [1]
- Henderson, B. and J. Lankoski (2019), *Evaluating the environmental impact of agricultural policies*, OECD Publishing, <https://doi.org/10.1787/add0f27c-en>. [12]
- Hilborn, R. et al. (2020), “Effective fisheries management instrumental in improving fish stock status”, *Proceedings of the National Academy of Sciences*, Vol. 117/4, pp. 2218-2224, <http://dx.doi.org/10.1073/pnas.1909726116>. [2]
- Kauffman, B. (1997), “Cost-recovery as a fisheries management tool”, *Marine Resource Economics*, Vol. 1/12, pp. 57-66. [8]
- Martini, R. and J. Innes (2018), “Relative Effects of Fisheries Support Policies”, *OECD Food, Agriculture and Fisheries Papers*, No. 115, OECD Publishing, Paris, <https://dx.doi.org/10.1787/bd9b0dc3-en>. [3]
- OECD (2020), *Agricultural Policy Monitoring and Evaluation 2020*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/928181a8-en>. [14]
- OECD (2020), *Fisheries, aquaculture and COVID-19: Issues and policy responses*, OECD Publishing, Paris, https://read.oecd-ilibrary.org/view/?ref=133_133642-r9ayjfw55e&title=Fisheries-aquaculture-and-COVID-19-Issues-and-Policy-Responses. [4]
- OECD (2020), *Government support and the COVID-19 pandemic*, OECD Publishing, <http://www.oecd.org/coronavirus/policy-responses/government-support-and-the-covid-19-pandemic-cb8ca170/>. [7]
- OECD (2020), “Non-tariff Measures in Agriculture”, [TAD/TC/CAWP(2019)12/REV1], [https://one.oecd.org/document/TAD/TC/CAWP\(2019\)12/REV1/en/pdf](https://one.oecd.org/document/TAD/TC/CAWP(2019)12/REV1/en/pdf). [15]
- OECD (2020), “Principles for Policy Coherence”, *Food Systems and the Challenge of Coherent Policies*, [TAD/CA/APM/WP(2020)4], [https://one.oecd.org/document/TAD/CA/APM/WP\(2020\)4/en/pdf](https://one.oecd.org/document/TAD/CA/APM/WP(2020)4/en/pdf). [13]
- OECD (2020), “The Performance of the Global Food System”, *Food Systems and the Challenges of Coherent Policies*, [TAD/CA/APM/WP(2019)29/FINAL], [https://one.oecd.org/document/TAD/CA/APM/WP\(2019\)29/FINAL/en/pdf](https://one.oecd.org/document/TAD/CA/APM/WP(2019)29/FINAL/en/pdf). [11]

- OECD (2009), *Reducing Fishing Capacity: Best Practices for Decommissioning Schemes*, Paris, OECD Publishing, <https://doi.org/10.1787/9789264044418-en>. [10]
- OECD (2006), *Financial Support to Fisheries: Implications for Sustainable Development*, <https://doi.org/10.1787/9789264036642-en>. [9]
- Parker, R. et al. (2018), “Fuel use and greenhouse gas emissions of world fisheries”, *Nature Climate Change*, Vol. 8/4, pp. 333-337, <http://dx.doi.org/10.1038/s41558-018-0117-x>. [5]
- Sumaila, U. et al. (2010), “A bottom-up re-estimation of global fisheries subsidies”, *Journal of Bioeconomics*, Vol. 12/3, pp. 201-225, <http://dx.doi.org/10.1007/s10818-010-9091-8>. [16]
- van Tongeren, F., J. Beghin and S. Marette (2009), “A Cost-Benefit Framework for the Assessment of Non-Tariff Measures in Agro-Food Trade”, *OECD Food, Agriculture and Fisheries Papers*, No. 21, OECD Publishing, Paris, <https://dx.doi.org/10.1787/220613725148>. [18]

Notes

¹ In developing countries, particularly in South-East Asia, the share of GDP, and contribution fish makes to food security, can be much higher. Fisheries products in some of these countries also account for an important share of trade.

² That is, by reducing marginal costs, or increasing the marginal benefits of operating.

³ SDG 14: Conserve and sustainably use the oceans, seas and marine resources.

⁴ It is recognised, however, that attempts at identifying harmful subsidies (Sumaila et al., 2010^[16]) has undoubtedly helped provoke discussion and maintain attention in this area.

⁵ To go beyond first-principles analysis of effects, a bio-economic model of the global fishery based in economic theory of production was developed allowing the effects of six common forms of fisheries support on capacity, effort and stock size to be determined under different management conditions (Martini and Innes, 2018^[3]). Income effects were quantified by calculating transfer efficiency. Forthcoming work by the OECD, building upon just described, will provide additional insights in this area by modelling and assessing the impacts of different support policies from the perspective of trade between regions.

⁶ Six main categories of policies that provide direct support to individuals and companies were analysed: payments based on fishers' income, own capita (i.e. return to fishing operations), vessels, variable input use (i.e. gear), fuel and output (i.e. catch volume).

⁷ Landings value data were unavailable for Brazil, Malaysia, Peru, Philippines and Viet Nam, which are thus excluded from this calculation.

⁸ This is based on a subset of countries, where data on both support and the value of landings were available (Argentina, China, Costa Rica, Indonesia, Chinese Taipei).

⁹ Support, catch volume, fleet gross tonnage (gt) and employment are to some extent all correlated. Large fleets may need more money in absolute terms, but more support can also mean a larger fleet, employment and catches.

¹⁰ Support to fuel is often non-specific to fisheries, as the same policy may also apply to other sectors such as agriculture, and is thus not reported by some countries and economies included in the FSE database. The figures for support to fuel, as reported throughout this paper, are consequently believed to not reflect the full extent of this form of support at aggregate levels (all countries and economies in the FSE database, OECD countries and emerging economies).

¹¹ Some services will also depend on the size of the EEZ, as large bodies of waters are more expensive to control; on the diversity of fishing activities, and on various country-specific characteristics such as the

geographical context or governance. In short, it is unlikely that a clear and direct relationship exists between any single factor and the appropriate level of SSS.

¹² Canada and the United States are not included in this calculation as gross tonnage data (gt) was unavailable.

¹³ This indicator does not include data for some of the Emerging countries (Brazil, Malaysia, Peru, Philippines and Viet Nam), as value of landings was not available.

¹⁴ Other potential reasons for this large difference include differences in the capacity to grant budgetary support which may constrain the total DSI. Differences in purchasing power at the level of different countries or economies may also mean that the relative level of support per dollar is not the same in all cases.

¹⁵ At the level of OECD countries, support to fuel is around a quarter of that to management, control, and surveillance, the single largest form of support in this group. The opposite picture is true for emerging economies, where support to fuel is the largest single policy overall and exceeds support to management, control, and surveillance almost sevenfold.

¹⁶ Once again, this is predominantly driven by China reducing the level of support it provided to fuel over this period.

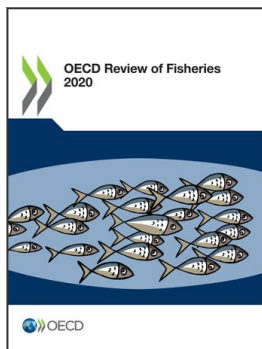
¹⁷ Anecdotal evidence suggests that policy silos can exist even within authorities. At the same time, co-operation between authorities can work well and there should be scope for improving policy coherence in relation with food policies even where agriculture and fisheries are managed by different authorities (Delpeuch and Hutniczak, 2019^[19]).

¹⁸ That is, all countries in the FSE database, with the exceptions of Brazil, Chinese Taipei, Malaysia, Peru, the Philippines, and Viet Nam.

¹⁹ While support to marketing and promotion in GSSE includes expenditure in processing, countries typically do not report support measures associated with processing and distribution sectors in the FSE (SSS).

²⁰ “Generally, [SPS and TBT] measures aim to overcome or reduce the impacts of perceived market imperfections, such as those related to negative externalities, risks for human, animal or plant health, or information asymmetries (van Tongeren, Beghin and Marette, 2009^[18]; Beghin et al., 2012^[17]). However, they also tend to increase production and trade costs and can affect, positively or negatively, the development of new technologies or production methods.

²¹ Performing like with like price comparisons requires information on marketing margins in relation with processing costs, transportation costs, quality characteristics and weight conversions across the supply chain, in addition to information on the domestic and trade policies that apply for a specific commodity.



From:
OECD Review of Fisheries 2020

Access the complete publication at:
<https://doi.org/10.1787/7946bc8a-en>

Please cite this chapter as:

OECD (2020), "Government support to fisheries", in *OECD Review of Fisheries 2020*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/c37fb5ce-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.