

Fisheries and Aquaculture in Japan

January 2021

Globally, fisheries and aquaculture production is an important source of accessible nutritious food, and a basis of livelihoods. It is also a key driver of coastal and rural economic well-being. However, overfishing, illegal fishing and the combined effects of ocean-based activities and climate change on resources and ecosystems put the sector at risk and undermine the resilience of those relying on it in many places. Improving fisheries and aquaculture management is crucial to ensure future generations continue to benefit from Ocean resources and ecosystem services.

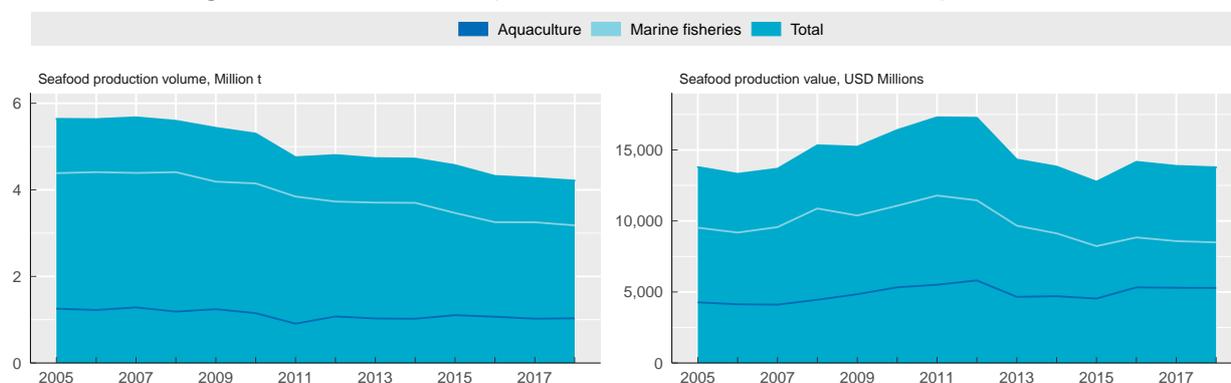
The country notes of the OECD Review of Fisheries 2020 present each country's situation in brief and identify best policy practices and reform pathways. These notes can also inform dialogue on progress towards internationally-adopted goals and targets with respect to sustainable fisheries and aquaculture management and support policies.

Overview of the sector

Fisheries and aquaculture production

In 2018, Japan produced **4.2 million tonnes of fish** (including molluscs and crustaceans), **with a value of USD 13775.7 million**. 38% of this value came from aquaculture and 62% from fisheries (that is, the capture of wild resources). Between 2008 and 2018, the quantity produced decreased by 25%, while its value decreased by 10%.

Figure 1: Fisheries and aquaculture's contribution to seafood production



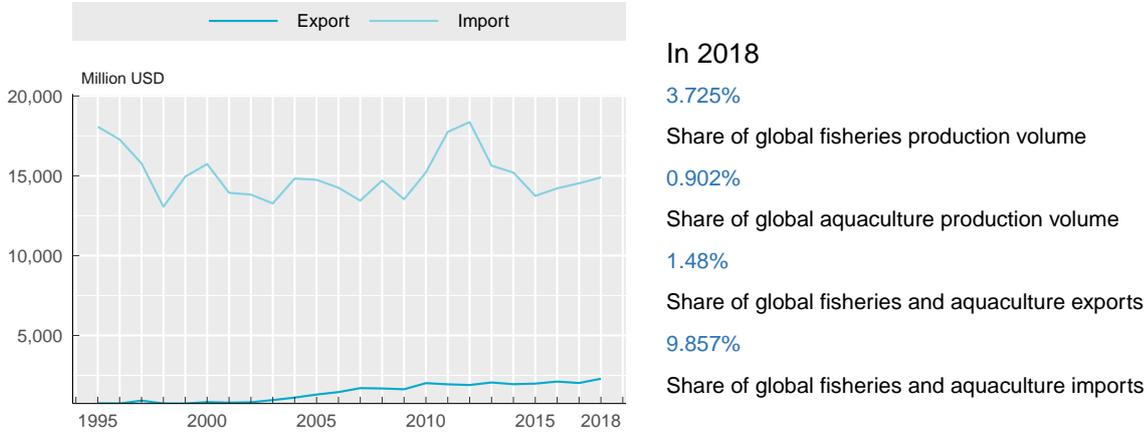
Source: FAO dataset 'Global Fishery and Aquaculture Production Statistics' (FishStat.J); OECD dataset 'Marine landings' (OECD.Stat).

Note: Seafood production volume is expressed in live weight tonnes. The value of aquaculture production is estimated based on unit value by live weight tonne, while the value of marine fisheries refers to the value of landings.

Production and trade in the global context

Japan is a **net importer of fish and fish products**. Between 2008 and 2018, **exports** increased by a total of 36%, while **imports** increased by 1%.

Figure 2: Trade in fish and fish products



Source: Trade data (UN Comtrade; WITS - World Integrated Trade Solution - the list of commodities included is specified in the OECD dataset 'International trade of fisheries products', OECD.stat) and FAO dataset 'Fishery and Aquaculture Production Statistics' (FishStatJ).

Employment and fleet

In 2018 **Employment in the seafood sector**, including processing, accounted for **202430 jobs**. This represented 19% less jobs than in 2008. Over the same period, **the average value of production per employee** decreased by 5% in marine fisheries and increased by 57% in aquaculture.

In 2018, the **fleet consisted of 230504 powered vessels**, down by 25% since 2008.

The total gross tonnage of the Japanese fleet in 2018 was 929437 tonnes, down by 22% since 2008.

Figure 3: Employment by sub-sector

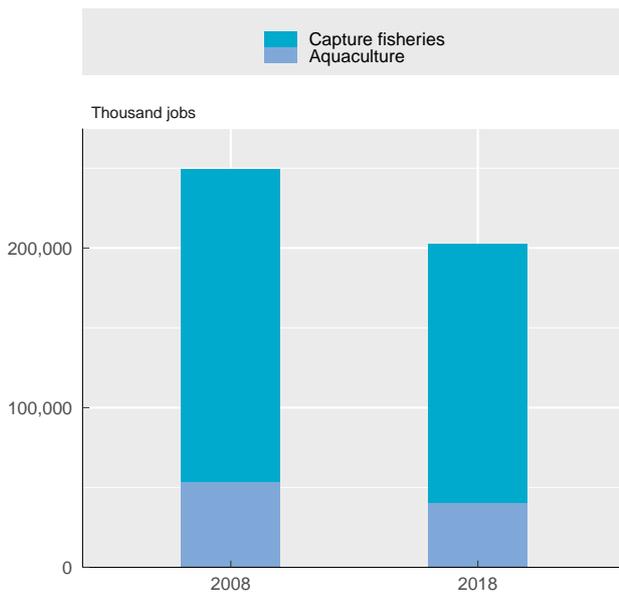
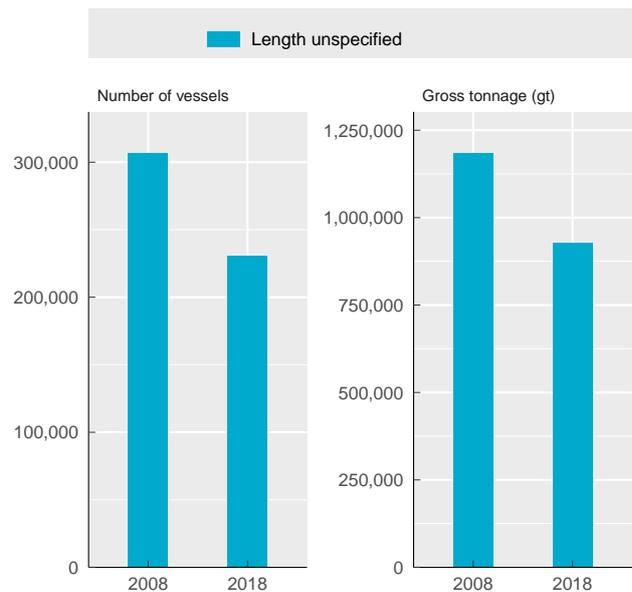


Figure 4: Fleet size by fleet segment



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

Government support to fisheries

Governments provide support to their fisheries sectors through a wide range of policies. The objectives vary but tend to centre on goals such as maintaining employment, improving fishers' welfare, or ensuring the sustainability of the sector and the resources it relies on. Usually, government finance services to the fisheries sector, which benefit the sector as a whole or some of its segments, and also provide direct support to individuals and companies.

Financing of services to the fisheries sector

In 2018, Japan spent JPY 135987.9 million (USD 1231.4 million) **financing services to the fisheries sector** while JPY 0 million (USD 0 million) was recouped via **cost-recovery charges**, that is, fees paid by service users, such as for port access or management, and taxes or fees on resource use and associated profits. Having the sector bear some of the cost of services, reduces the extent to which taxpayers finance it. Net of cost-recovery charges, the **public cost of services to the fisheries sector** amounted to 14.5% of the value of production, while the OECD average was 8.5% in 2018.

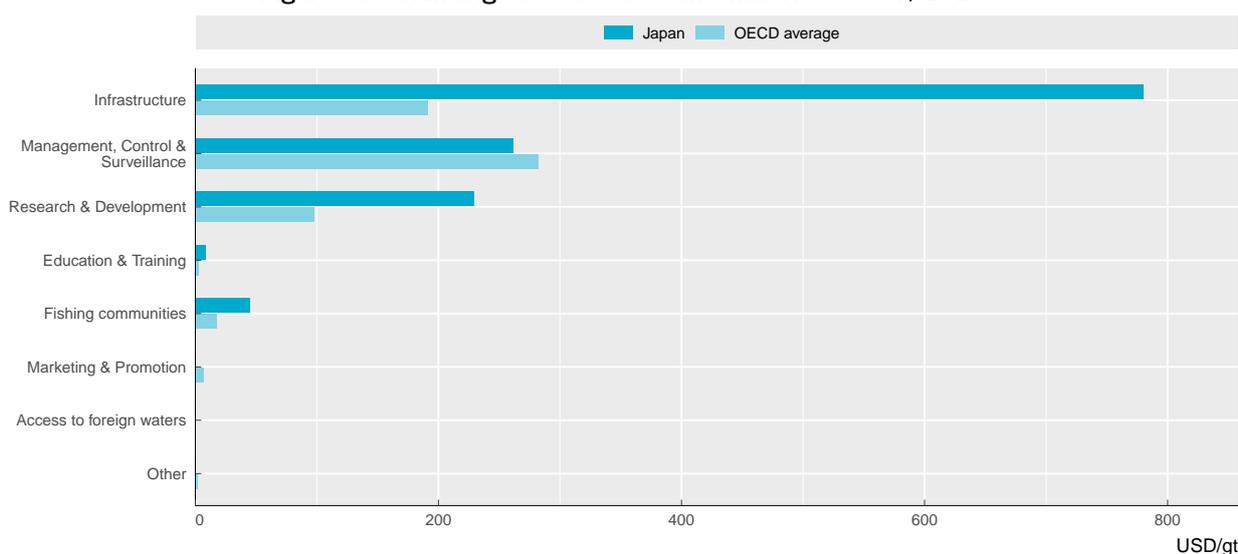
The intensity of fisheries services financing relative to fleet size was **USD 1324.8 per gross tonne (gt) of total fleet capacity** in 2018. This compares with an OECD average of USD 601.8 per gt in 2018.

Some services to the sector aim to ensure its sustainability or improve **fishing communities' well-being**, while only indirectly supporting the intensity of fishing activities. In the OECD, such services, including **management, control and surveillance**, accounted for an average of 59.2% of spending on services to the sector in 2018.

Other services 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 average of 16% of spending on services to the sector in the OECD in 2018.

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. In the OECD, these services have accounted for an average of 24.5% of financing of services to the sector in 2018.

Figure 5: Financing of services to the fisheries sector, 2018



Source: OECD datasets 'Fisheries Support Estimate (FSE)' and 'Fishing fleet' (OECD.Stat).

Note: Figure uses the latest data reported by Japan (2018) and OECD average for 2018.

Direct support to individuals and companies in the fisheries sector

In 2018, Japan provided support totalling JPY 162.8 million (USD 1.5 million) through **policies directly benefiting individuals and companies** in the fisheries sector, up by a total of 64% since 2014. This amounted to 0% of the value of production.

A common objective of direct support policies is to maintain or increase the incomes of fishers. Relative to employment, direct support to individuals and companies increased by 79% since 2014, reaching USD 9.1 per fisher in 2018.

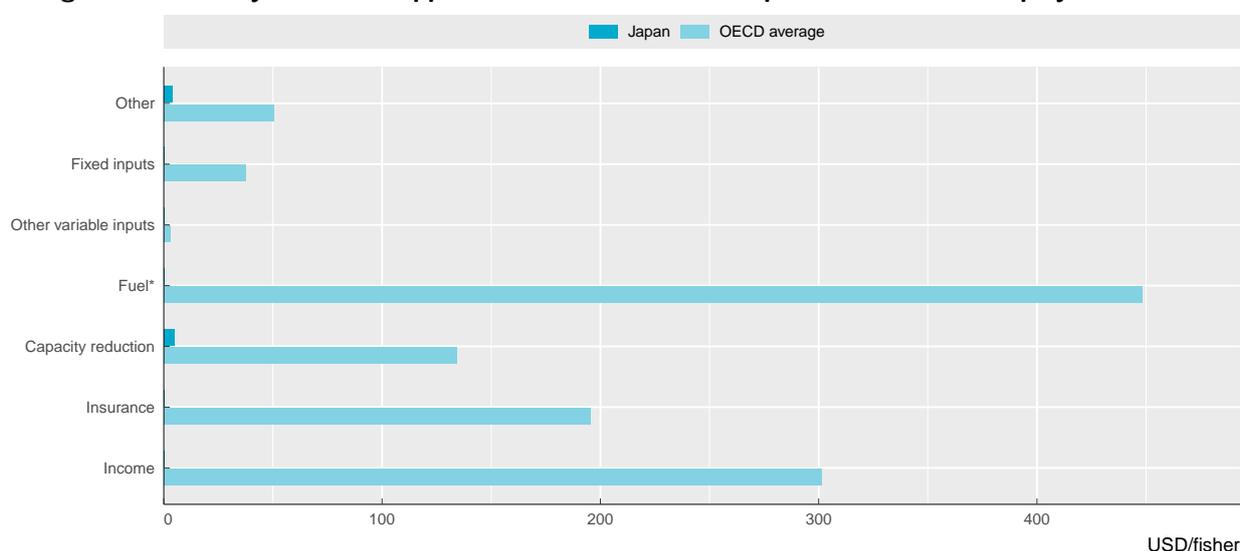
Direct support to individuals or companies originates in a variety of policies. Some **payments can be partially de-coupled from fishing activities**, such as **income** support, special **insurance** systems. Japan spent USD 0 per fisher on these types of policies in 2018. In the OECD, the average spending per fisher was USD 496.8 in 2018.

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.** These include **support for fuel**, for **other variable inputs** (like payments to reduce the cost of ice or bait) and for fixed inputs (such as support to vessel construction and modernization or to the purchase of gear). In 2018, Japan spent **USD 0 per fisher** on **policies lowering the cost of inputs.**

The impact of support policies varies depending both on the type of policy and the effectiveness of fisheries management. For example, OECD work has shown that support to fuel is one of the least effective means of transferring income to fishers; while policies lowering the cost of inputs more generally are the most likely to provoke overcapacity, overfishing and illegal, unreported and unregulated (IUU) fishing. OECD analysis has also demonstrated that support policies generally benefit fishers more and are less likely to encourage unsustainable fishing when an effective management system is in place (e.g. when total allowable catch limits are used).

Figure 6: Intensity of direct support to individuals and companies relative to employment, 2018



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

Notes: Figure uses the latest data reported by Japan (2018) and OECD average for 2018.

*In the OECD dataset 'Fisheries Support Estimate (FSE)' (OECD.Stat), there are two different types of support to fuel, tax concessions and direct transfers to reduce the cost of fuel. Since impacts are similar, they are jointly considered as support to fuel. Tax concession to fuel are often not specific to fisheries, as the same policies 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.

Sustainable fisheries management

With the adoption of Sustainable Development Goal 14 (SDG 14) of the 2030 Agenda for Sustainable Development, member countries of the United Nations (UN) agreed to **end overfishing by 2020** and effectively **regulate fishing activities on the basis of science**.

Ending overfishing relies on controlling the quantity of fish being caught, and enforcing scientifically established **total allowable catches (TACs)** for at least the main species of commercial interest is recognised as an effective and transparent way of achieving this. The value of production of the top-5 Japanese species was USD 2722.8 million, accounting for 32.1% of total fisheries production value in 2018. **2 of these species were then entirely under TAC limits**, while **0 were partly under TAC limits** (i.e. TAC limits were set for some fisheries targeting these species but not all).

Regularly assessing the status of individual fish stocks is an essential component of sustainable fisheries management. Determining where stocks sit with respect to key limit or target reference points allows management performance to be evaluated. In Japan, **the status of 84 stocks has recently been quantitatively assessed**. Of these, **43 are assessed to have a biologically favourable status** and 14 to also be meeting additional management objectives. For the *Review of Fisheries 2020*, a total of 1119 stocks across 16 countries and economies (including the European Union), were reported as having recently been assessed, of which, 734 (66%) were assessed to have a biologically favourable status.

Determining stock status and enforcing TACs on the basis of quantitative assessments can require extensive information and expertise. In some cases, such as when fishers harvest a wide variety of species, the value of a stock is low, or data is unavailable, the cost and practicality of quantitatively assessing and managing individual stocks with TACs can be prohibitive. In these instances, data on catch rates and other relevant sources of information might be utilised to infer stock status. In addition, **alternative tools to control the impact of fishing** include limits to fishing effort such as on days at sea or fishing licenses and restrictions on fishing practices such as on fishing areas, gear and seasons. **Such tools were used to manage 5 of the top-5 species**.

Figure 7: Use of total allowable catch (TAC) limits in managing the key species

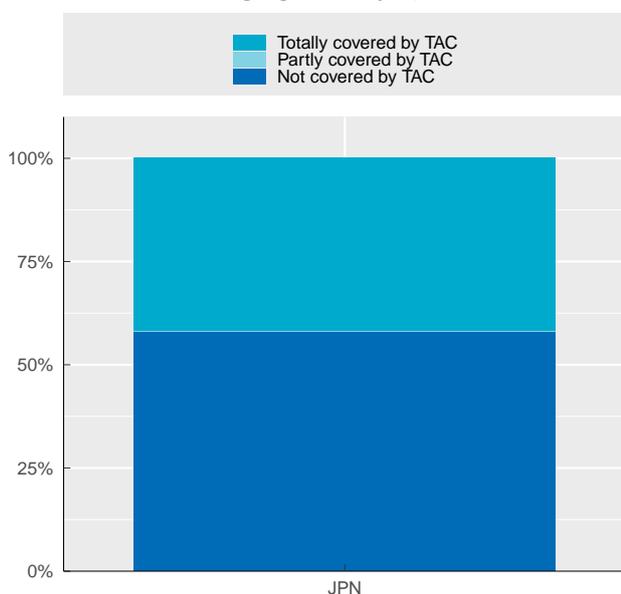
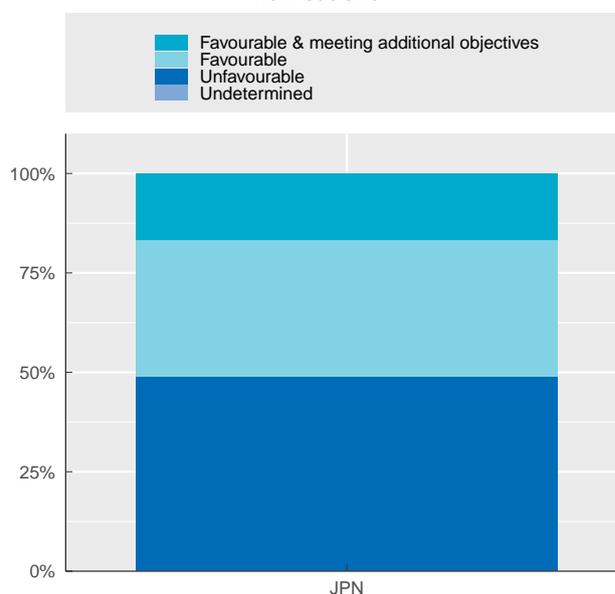


Figure 8: Reported biological status of all assessed fish stocks



Note: Figures use the latest data reported (2018 for Figure 7 and 2019 for Figure 8).

Fighting illegal, unreported and unregulated (IUU) fishing

IUU fishing harms law-abiding fishers by creating unfair competition and cutting profitability and employment opportunities, while weakening food security in countries that depend on local seafood. IUU fishing also undermines governments' capacity to manage fish stocks sustainably by adding pressure that is difficult to quantify when setting catch limits. It further threatens ecosystems when it makes use of damaging harvest methods and targets species that are already endangered.

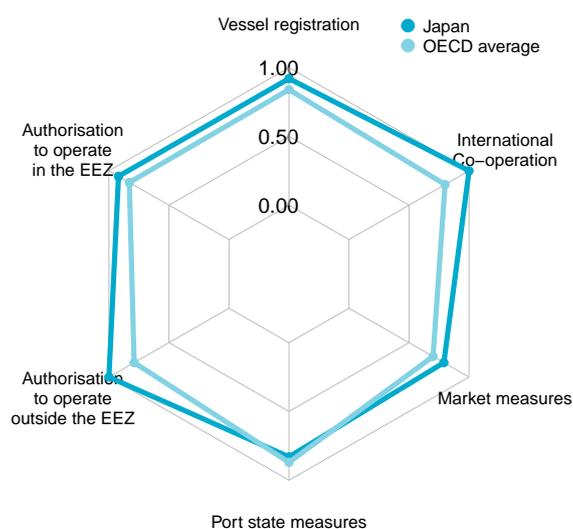
Adopting and implementing internationally recognised best policies and practices against IUU fishing is thus key to accelerate the elimination of this serious threat as agreed under SDG 14, which sets the objectives to **end IUU fishing and eliminate subsidies contributing to it by 2020**.

The OECD **IUU policy indicators** investigate the extent to which countries meet their responsibilities in the most important dimensions of government intervention in relation to IUU fishing:

- **Vessel registration**, by which countries collect and publicize information on vessels operating in their exclusive economic zone (EEZ) or flying their flag;
- **Authorisation to operate in the EEZ**, by which countries regulate fishing and fishing-related operations in their EEZ;
- **Authorisation to operate outside the EEZ**, by which countries regulate the operations of vessels flying their flag in areas beyond national jurisdictions and in foreign EEZs;
- **Port measures**, by which countries monitor and control access to and activities at port;
- **Market measures**, by which countries regulate how products enter the market and flow through the supply chain and economically discourage IUU fishing;
- **International co-operation**, by which countries engage in regional and global information sharing and joint activities against IUU fishing.

Japan performs most strongly in Authorisation to operate outside the EEZ, International Co-operation; greatest scope for progress is in the area of Market measures.

Figure 9: Country's progress in implementing best policies and practices



Note: Figure uses the latest data reported by Japan (2018) and OECD average for 2018

News from Japan

- In 2018, reform on fisheries policies relating to fishery production and resource management measures was taken place. Consequently, the Fishery Act was amended in December 2018 (its enactment is scheduled for December 2020). The summary of amendment is as follows:
- Resources are basically to be managed on the basis of the total allowable catch (TAC) and to be maintained at or restored to the maximum sustainable level (MSY), based on stock assessment (Article 8).
- The Ministry of Agriculture, Forestry and Fisheries (MAFF) shall set the resource management target and determine TACs so as to recover the stock to that target level (Article 11).
- A person who has been granted a fishing permit is imposed the responsibility to appropriately manage resources and enhance productivity, and is obliged to report on information about fishery production (Article 52).
- Promotion of a new resource management system:
 - For transformation of the fisheries industry into a growth industry, it is important to preserve, recovery, and appropriately manage the resources. Therefore, resource evaluation is conducted on the basis of resource surveys and an evaluation method and management method are introduced with a management aim to realize that the catch reaches maximum sustainable yield (MSY).
 - For the resource evaluation, 1) information of resource generation situation, 2) estimation of the number of fish for different ages, the natural decrease rate, and the rate of death due to catch, and 3) influence of recent marine environmental change on the natural decrease rate are examined and a survey system to collect necessary information for the examination is strengthened.
 - For non-TAC fish, results of the resource evaluation are released successively and an examination meeting is held. By doing so, it is aimed at that 80% of the catch will be under control of TAC management by 2023.
 - Management based on Individual Quota (IQ) is introduced successively to the ready fisheries permitted by the minister.
 - For collection of catch information which is important for the resource evaluation and resource management, it is newly obliged for fisheries permitted by a prefectural governor to submit a catch record report. It is also obliged for fisheries with fishing right to submit a report on resource management and ground usage. For the catch information, reporting and collecting via electronic means are promoted as smart fisheries activity.
- Response to COVID-19:
 - In and after January 2020, there have been reduction of domestic price and decline of export due to decrease of fishery products, such as scallop, yellowtail, bream, etc., caused by influence of COVID-19, and shortage of foreign workers due to regulations on entry, which largely affect business of fishers and fishery processors.
 - In and after March 2020, fisheries organizations are provided with caution to prevent infections and information about measures to continue business.
 - For financial support for affected fishers, their burden of interest payments or security on loans for fishing operations or loans for payment of existing debts will be effectively eliminated and their guarantee charge will be supported. Furthermore, the amount of money in the fishery income stabilization fund to compensate for the decrease in income of fishers will be increased and support will be provided for the temporary storage of excess supply of fisheries products affected by reduced demand and for the promotion of sales to new sales channels.

For further reading

The OECD Review of Fisheries 2020 aims to support policy makers and sector stakeholders in their efforts to deliver sustainable and resilient fisheries that can provide jobs, food and livelihoods for future generations. The Review updates and analyses the OECD fisheries support estimate (FSE) database, the most comprehensive, detailed, and consistent collection of country level data on governments support to fisheries. It also presents and analyses newly-assembled data on the health of fish stocks; on the management of key stocks of commercial interest; and on the governance of fisheries across OECD countries and emerging economies with large fishing sectors. The report sheds light on how governments are managing fisheries to minimise detrimental impacts on resources and ecosystems, eliminate illegal, unregulated and unreported (IUU) fishing, while increasing the socio-economic benefits from fishing. It suggests priorities for action both at the national level and for the international community.

- **Key OECD reports**

- [Fisheries, aquaculture and COVID-19: Issues and policy responses](#)
- [Relative effects of fisheries support policies](#)
- [Informing fisheries trade negotiations](#)
- [Encouraging policy change for sustainable and resilient fisheries](#)
- [Closing gaps in national regulations against IUU fishing](#)
- [Intensifying the fight against IUU at regional level](#)

- **To access and download all our data and policy indicators**, please visit the [OECD statistical portal](#).

- **All OECD Review of Fisheries Country Notes** can be found on the [OECD Fisheries and aquaculture](#) website.

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✉ tad.contact@oecd.org

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