

The Result of the Third Survey of Procured Marine Resources Sustainability



Overview of the Survey

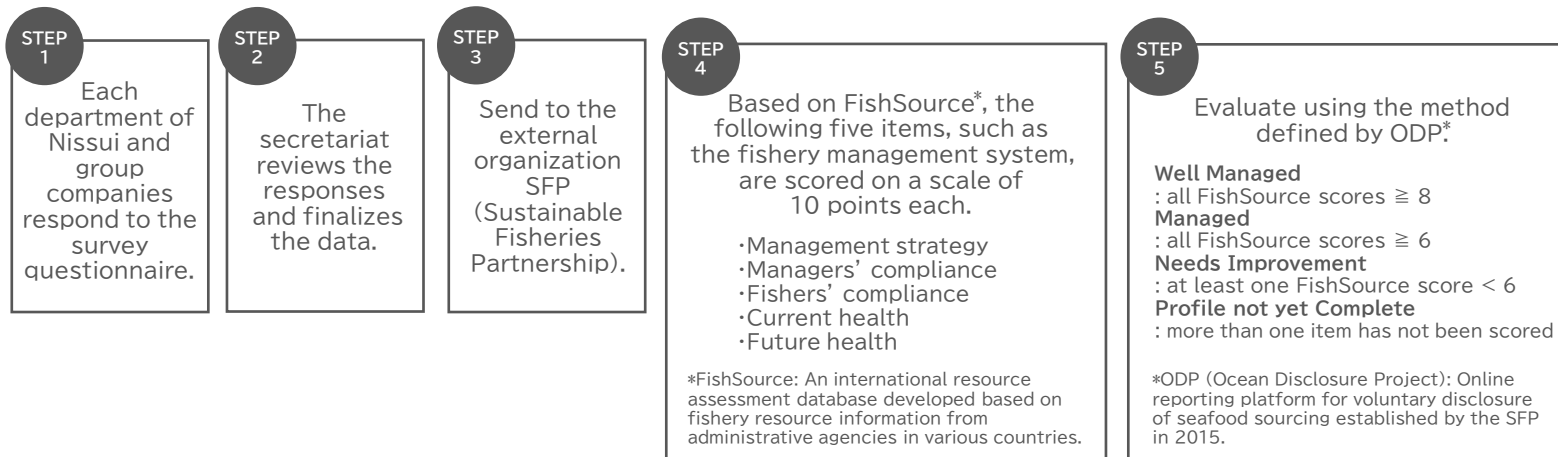
Target of survey: Natural and processed marine products at Nissui Corporation and its 36 Group companies (16 in Japan, 20 overseas), both caught by Nissui Group fisheries and procured from outside parties

- * Marine products handled by each company amounting to 10 million JPY (1 billion USD) or more
- * Seaweed is excluded

Period of survey: January 2022~December 2022

Items of survey: Species (science name), catch areas (FAO fishing area), country of origin, weight (in raw fish equivalent), fishing methods and equipment used, flag country, etc.

Method of Survey:



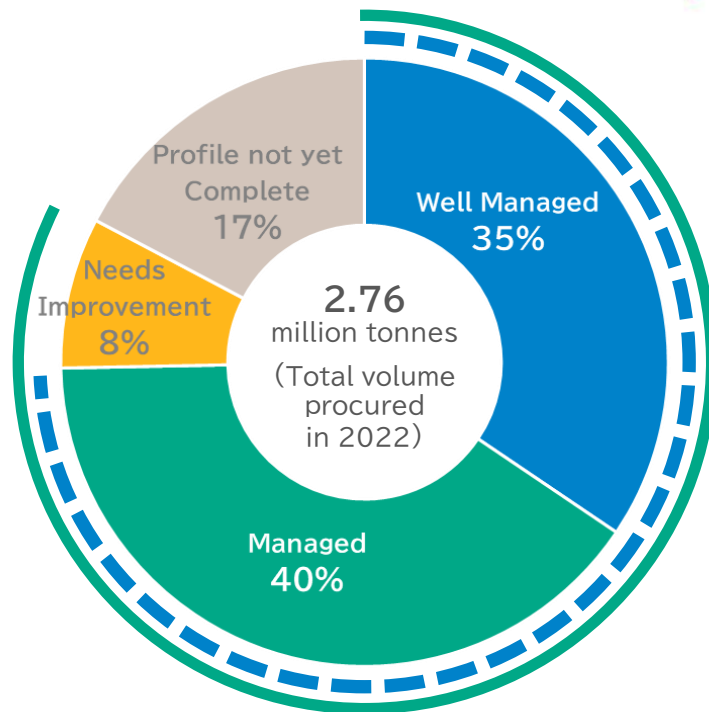
Result of the Survey

As a result of the survey, of marine products handled in 2022, about **83%** were procured from fisheries with management framework in place and about **75%** consisted of correctly maintained and managed resources (“Well managed” or “Managed”).

Overview of procured marine resources in 2022

- Weight: 2.76 million tonnes in raw fish equivalent
- No. of species: 304 species
- Catch areas: 18 FAO* fishing area
- State of resources management:
 - Well Managed·····35%
 - Managed·····40%
 - Needs Improvement·····8%
 - Profile not yet Complete·····17%

*FAO:Food and Agriculture Organization of the United Nations

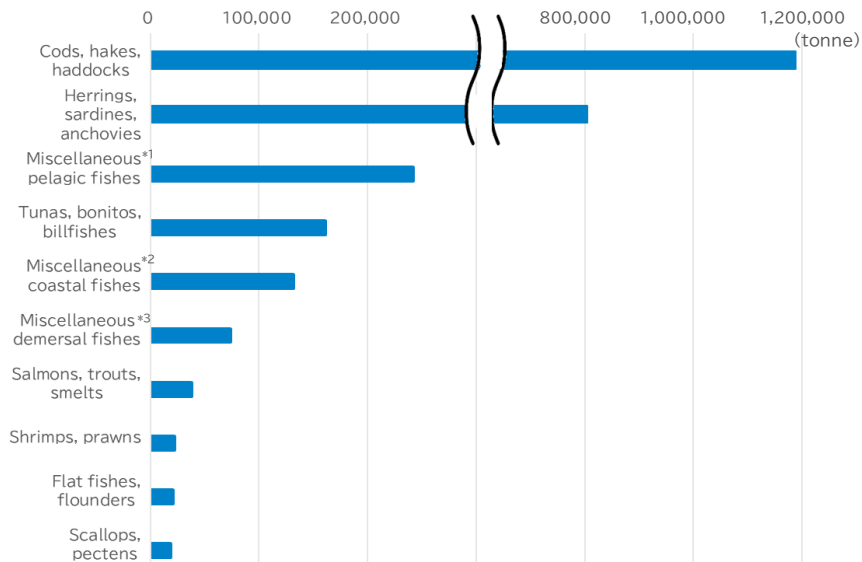


- Fisheries with management framework in place **83%**
- Correctly maintained and managed “Well managed” or “Managed” **75%**

Volume Handled by Species

Of fish species handled, the largest proportion consisted of Alaska pollock, a white-meat fish. This was followed by Peruvian anchoveta and Japanese sardine, used as feedstocks for fishmeal and fish oil. These three constituted 54% of volume handled, while the top 10 species comprised 75% of volume handled.

Procured volume by category (FAO-ISSCAAO classification)

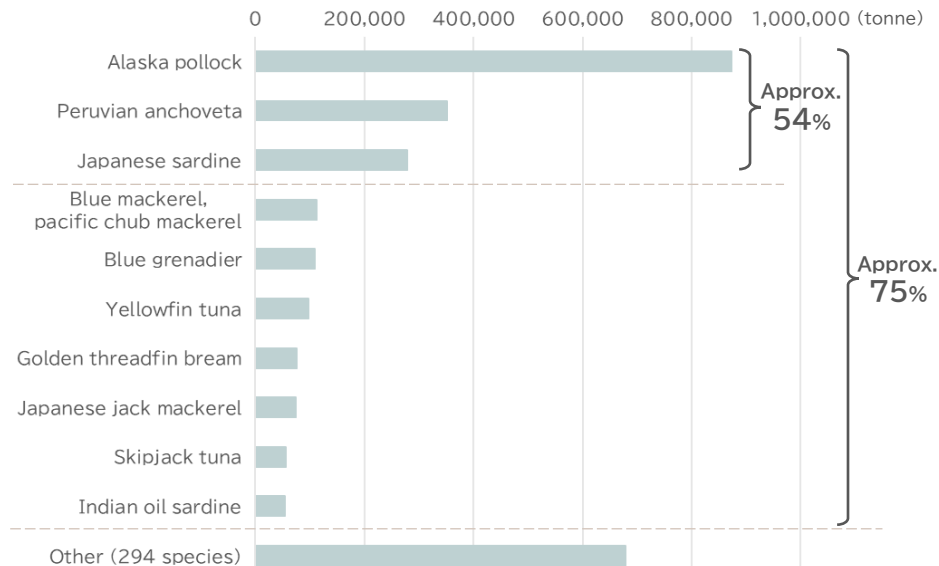


*1 Miscellaneous pelagic fishes: mackerels, yellowtails, horse mackerels, etc.

*2 Miscellaneous coastal fishes: sea breams, sea bass, lizardfish, etc.

*3 Miscellaneous demersal fishes: hairtail, white warehou, orange roughy, etc.

Procured volume by fish species*4



*4 To fully understand the risks, the volume procured was converted to raw fish equivalent.

Status of resource by method of procurement

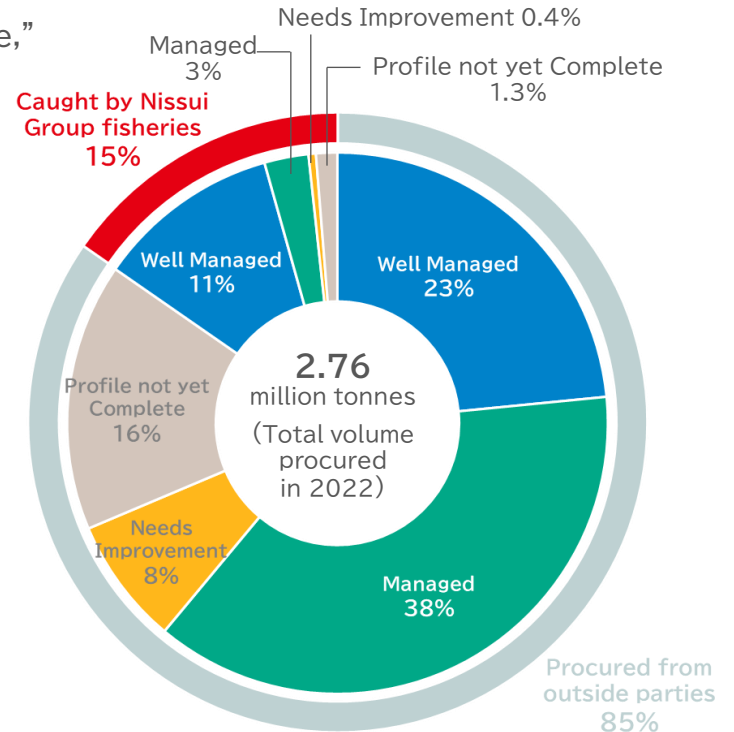
Of total volume procured, 85% was procured from outside parties. Analysis of the status of resources by method of procurement (from outside parties or caught by Nissui Group fisheries) reveals that most of the volume procured Group-internally was sustainably managed (“Well Managed” or “Managed”).

On the other hand, products procured from outside parties were mostly “Needs Improvement” or “Profile not yet Complete,” indicating that more work with suppliers is required.

Status of resource by method of procurement (percentage of total procured from outside parties or caught by Nissui Group fisheries)

[Procured from outside parties]
 Well Managed·····23%
 Managed·····38%
 Needs Improvement·····8%
 Profile not yet Complete····16%

[Caught by Nissui Group fisheries]
 Well Managed·····11%
 Managed·····3%
 Needs Improvement·····0.4%
 Profile not yet Complete····1.3%



Handling of Endangered Species

As a result of the survey, some of the marine resources handled include species classified as Critically Endangered (CR) or Endangered (EN) on the IUCN Red List.

In 2022 the Nissui Group established the “Nissui Group Endangered Species (Marine Products) Procurement Policy,” the Group is determining measures against the procurement of endangered species to ensure sustainability.

	Science name	Species	Volume (tonne)
CR	<i>Anguilla anguilla</i>	European eel	0.9
EN	<i>Leucoraja ocellata</i>	Winter skate	103 (Of which, 98.3% are MSC certified)
	<i>Apostichopus japonicus isurus</i>	Sea cucumber	38
	<i>Thunnus maccoyii</i>	Southern bluefin tuna	20
	<i>Anguilla japonica</i> ☒	Japanese eel	5
	<i>Anguilla dieffenbachii</i>	New zealand longfin eel	0.3
VU	<i>Gadus morhua</i>	Atlantic cod	26,630 (Of which, 97.0% are MSC certified)
	<i>Melanogrammus aeglefinus</i>	Haddock	10,789 (Of which, 99.5% are MSC certified)
	<i>Thunnus obesus</i>	Bigeye Tuna	1,045
	<i>Pseudupeneus prayensis</i>	West african goatfish	616
	<i>Makaira nigricans</i>	Blue marlin	81
	<i>Squalus suckleyi</i>	Spiny dogfish	73 (Of which, 92.5% are MSC certified)
	<i>Glyptocephalus cynoglossus</i>	Witch flounder	39

Nissui Group Endangered Species (Marine Products) Procurement Policy

The Nissui Group is committed to complying with treaties and laws related to biodiversity and to contributing to the realization of a society that is in harmony with nature. For marine resources at high risk of depletion, procurement will be suspended if scientific and practical measures* are not taken to recover the resources by 2030.

*Scientific and practical measures for resource recovery

1. Fishery products certified by the MSC or other certification bodies (equivalent to GSSI certification), or FIP products.
2. Scientific fishery management by international resource management organizations such as RFMOs.
3. Rated “Managed” or above based on criteria established by the ODP.
4. Any other specific measures being taken to achieve 1-3 above.

*FIP: Fishery improvement project, in which fishermen, companies, distributors, NGOs, and other stakeholders work together to improve the sustainability of fisheries.

Trend in Volume of MSC Certified Fish Species

The previous (2019) survey of the status of resources found that some of the marine products procured by the Group were endangered species. In response, and based on the Nissui Group Endangered Species (Marine Products) Procurement Policy, the Group is advancing the procurement of fisheries products certified by the Marine Stewardship Council (MSC) and other organizations. As a result, the number of MSC-certified fish species handled by the Group has risen by 17 species, from 55 to 72, constituting a 4% increase in procured volume.

Volume procured from MSC-certified fisheries (2019)

Rank	Species	No. of species	Kton
1	Alaska pollock	1	597
2	Blue grenadier	1	66
3	North pacific hake	1	17
4	Yellowfin sole	1	13
5	Pacific cod	1	13
6	Atlantic cod	1	11
7	Skipjack tuna	1	7
8	Southern hake	1	5
9	Atlantic seabob	1	5
10	Orange roughy	1	4
	Other (45 species)	45	31
Total		55	770



Volume procured from MSC-certified fisheries (2022)

Rank	Species	No. of species	Kton
1	Alaska pollock	1	563
2	Blue grenadier	1	66
3	North pacific hake	1	50
4	Atlantic cod	1	25
5	Pacific cod	1	17
6	Yellowfin sole	1	17
7	Haddock	1	11
8	Southern hake	1	9
9	Sockeye salmon	1	5
10	Southern blue whiting	1	5
	Other (62 species)	62	35
Total		72	801

Issues and the Countermeasures

Issues

- **Species procured in large volumes from outside parties**
While the Nissui Group has established sustainability in its own fisheries, appropriate responses from outside parties are still lacking for many species.
- **Species whose resource status is difficult to determine**
These are fish species “Needs Improvement” or “Profile not yet Complete.”
- **Fish species procured in processed form**
Of the above fish species, these are species especially used for fish oils, fishmeal and surimi.
- **Response to human-rights risks**
In some cases, progress is being made in determining the status of resources, but response in terms of human-rights risks is required.

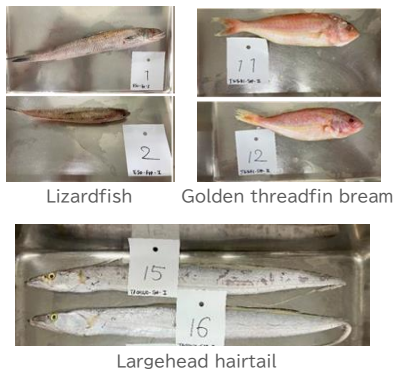
Countermeasures

- ① Prioritize fish species whose resource status is difficult to determine (particularly those used to make fishmeal, fish oils and surimi), through measures such as participation in round-table discussions and FIPs.
- ② Work to identify the resources used in products for which catch information is hard to obtain, for example by working with suppliers to establish traceability.
- ③ Examine methods of evaluation for use in determining human-rights violation risk for procured resources.

Examples of Specific Measures

Genetic identification of fish species used in processed products

Evaluation of sustainability is impossible without accurate identification of fish species and resources. However, the large numbers of subspecies for each species means that the fish species reported in the previous resource status survey may differ from those actually procured. To address this concern, the Nissui Group is applying genetic analysis to identify fish species. For this purpose the Group conducted genetic identification of 31 specimens of feedstock fish used in minced-fish products and the like, such as lizardfish, golden threadfin bream and hairtail, sourced from India, Thailand and China.



Species	No. of specimens
Lizardfish	4
Croaker	2
Daggertooth pike conger	2
Grouper	2
Goatfish	4
Golden threadfin bream	6
Red bigeye	4
Japanese sardinella	1
Largehead hairtail	6
Total	31

Evaluation of Extensive Shrimp Farming from a Social-scientific Perspective

At a Group company in Vietnam that mainly handles white and pink shrimp as main raw materials, the resource was evaluated as “Profile not yet Complete.” Nissui searched for countermeasures, such as scientific resource surveying and management, but was unable to discover specific policies, so a survey commissioned to Professor Akiko Ikeguchi of Yokohama National University, who carried out the evaluation from a social-scientific perspective in collaboration with Can Tho University in Vietnam. A fact-finding survey was conducted on the management status, care for the environment the working conditions, etc., of 200 households in Đầm Dơi and Ngạc Hiền Districts, both in Ca Mau Province. The results of the survey were presented to the International Geographical Union on August 28, 2024.





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