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Economic Indicators for the NSW Sea Urchin and Turban Shell Fishery in 2023/24

A report for Department of Primary Industries and Regional Development

2 December 2025

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Abbreviations

ABARES	Australian Bureau of Agriculture and Resource Economics and Science
CPI	Consumer Price Index
DPIRD	the Department of Primary Industries and Regional Development
FRDC	Fisheries Research and Development Corporation
fte	full-time equivalent
GLS	Global Life Satisfaction
GOS	Gross Operating Surplus
GRP	Gross Regional Product
GSP	Gross State Product
GVP	Gross Value of Production
NSW	New South Wales
PWI	Personal Wellbeing Index

Acknowledgements

In the preparation of economic and social indicators for the NSW commercial fisheries, BDO has relied heavily on the voluntary cooperation of fishing operators in providing data for the surveys. We are particularly grateful for the time and cooperation generously provided by fishing businesses in responding to the rather lengthy questionnaire. BDO is also indebted to the members of the Commercial Fishing NSW Advisory Council, NSW Wild Harvest Fishers Inc. and the Sydney Fish Market for providing the necessary information, advice and support. NSW DPIRD officers provided assistance, were supportive of the data collection and offered valuable advice which was much appreciated.

Glossary

Active business: refers to a fisher operating a fishing business which fished at least one day during the relevant period.

Beach price: refers to the unimproved price received by commercial fishers when landing their catch at the beach, wharf or port (also referred to as wharf price and comparable to farm gate price), and is generally expressed in terms of $/kg or $/unit. Processing margins are not included in the beach price as processing operations are assumed to occur further along the value chain. The use of beach prices also removes the effect of transfer pricing by the firm if it is vertically integrated into the value chain.

Boat business profit: is defined as gross operating surplus less depreciation less owner-operator and unpaid family labour. Boat business profit represents a more complete picture of the actual financial status of an individual firm, compared with gross operating surplus, which represents the cash in-cash out situation only.

Boat cash income: is defined as gross operating surplus less imputed wages for owner-operator and unpaid family labour.

Boat gross margin: is defined as gross income less total boat variable costs. This is a basic measure of profit which assumes that capital has no alternative use and that as fishing activity (days fished) varies there is no change in capital or fixed costs.

Cost of management: in a commercial fishery management services will generally include biological monitoring and reporting; policy, regulation and legislation development; compliance and enforcement services; licensing services; and research. Approximated by licence fees in this report.

Days fished: refers to the number of days fished by a fishing business throughout the relevant period.

Depreciation: refers to the annual reduction in the value of working capital due to general wear and tear or the reduction in value of an item over time. Note this is a measure of economic depreciation not accounting depreciation[1].

Employment: is a measure of the number of working proprietors, managers, directors and other employees, in terms of the number (total jobs) or full-time equivalent (fte) jobs. One fte is considered to be 37.5 hours per week for 42 weeks per year.

Endorsement: authorises the holder to take certain species of fish in certain areas using specific methods. To be eligible for an endorsement in a share management fishery, a minimum number of shares of a corresponding type must be held.

Equity: commercial fishing businesses in New South Wales utilise valuable fishery shares, vessels or vehicles and other working capital. They may hold cash and may also hold debt to finance the business and other liabilities. The total assets held by a business less its total liabilities is the business' equity, which can be expressed in dollar terms or as a percentage of total asset value.

Fishing business: for the purpose of this report is an economic entity rather than a legal entity and is defined by Fishing Business ID or Authorised Fisher ID.

Gross income: refers to the cash receipts received by an individual firm and is expressed in Australian dollar terms. *Gross Income* is calculated as catch (kg) multiplied by 'beach price' ($/kg). Total boat income is the contribution of an individual fishing business to the GVP of a fishing sector or fishery.

[1] Accounting depreciation allocates the cost of an asset over its useful life.

Gross operating surplus (GOS): is defined as gross income less total boat cash costs and is expressed in current Australian dollar terms. GOS may be used interchangeably with the term gross boat profit. A GOS value of zero represents a breakeven position for the business, where total boat cash costs (TBCC) equals total boat cash receipts (TBCR). If GOS is a negative value the firm is operating at a cash loss and if positive the firm is making a cash profit. GOS does not include a value for owner/operator wages, unpaid family work, or depreciation.

Gross regional product (GRP) and gross state product (GSP): is a measure of the net contribution of an activity to the regional/state economy. Contribution to GRP or GSP is measured as value of output less the cost of goods and services (including imports) used in producing the output.

Gross value of production (GVP): refers to the value of the total annual catch for individual fisheries, fishing sectors or the fishing industry as a whole, and is measured in dollar terms. GVP, generally reported on an annual basis, is the quantity of catch for the year multiplied by the average monthly landed beach prices.

Sample size: is the total sample, including both 2023/24 survey and 2019/20 supplementary responses.

Total boat cash costs (TBCC): defined as Total Boat Variable Costs plus Total Boat Fixed Costs.

Total boat fixed costs: are costs that remain fixed regardless of the level of catch or the amount of time spent fishing. As such these costs, measured in current dollar terms, are likely to remain relatively constant from one year to the next. Examples of fixed cost include:

- insurance
- administrative and industry fees
- office & business administration (communication, stationery, accountancy fees)
- interest on loan repayments and overdraft
- leasing.

Total variable costs: are costs which are dependent upon the level of catch or, more commonly, the amount of time spent fishing. As catch or fishing time increases, variable costs also increase. Variable costs are measured in current dollar terms and include the following individual cost items:

- fuel, oil and grease for the boat
- bait
- ice
- provisions
- crew payments
- unscheduled repairs & maintenance.

Working capital: includes capital items that are required by the fishing business to earn the gross income[2]. It includes boat hull, engine, electronics and other permanent fixtures and tender boats. Other capital items such as motor vehicles, sheds, cold-rooms, and jetty/moorings are included to the extent that they are used in the fishing business.

[2] Working capital should not be confused with financial capital which is money provided by lenders for a price (interest).

Document history and status

Doc Version	Doc Status	Issued To	Qty Elec	Date	Reviewed	Approved
1	Draft	DPIRD Fisheries	1 Word 1 PDF	19/9/2025	ADM	ADM
2	Draft	DPIRD Fisheries	1 Word 1 PDF	24/10/2025	ADM	ADM
3	Final	DPIRD Fisheries	1 Word 1 PDF	2/12/2025	ADM	ADM

Last Saved:	2/12/2025 9:15 AM
File Name:	Economic_Indicators_FY24_Sea Urchin and Turban Shell_Final_251202.docx
Project Manager:	Anders Magnusson
Principal Author/s:	Anders Magnusson & Jasmine Douglas
Name of Client:	Department of Primary Industries and Regional Development
Name of Project:	Economic Indicators for the NSW Sea Urchin and Turban Shell Fishery in 2023/24
Document Version:	3
Job Number:	2501

Summary

This report presents economic indicators for the Sea Urchin and Turban Shell fishery for 2023/24. This forms the fifth consecutive financial year of annual indicators.

BDO was contracted by the Department of Primary Industries and Regional Development (DPIRD) to develop an independent economic and social indicator monitoring program to inform stakeholders with published financial, economic and social information about commercial fisheries in New South Wales (NSW). The objective is to inform discussions and decisions about fisheries management and to develop an understanding of the values supported by the industry. This report is complemented by a more comprehensive report 'Economic Indicators for NSW Commercial Fisheries for 2023/24' (BDO 2025) that describes the monitoring program in detail and presents results for all NSW commercial fisheries.

A summary of key indicators is provided in Table S-1. In 2023/24, the Sea Urchin and Turban Shell fishery produced $900,000 in gross value of production (at beach price) from a catch of 338 tonnes. The fishery generated -$2.0 million in net economic return. Including flow-on contributions to the broader economy, the fishery supported $8.5 million of gross state product and 82 fte jobs in NSW.

An increase in catch, despite a decrease in price, led to an increase in GVP between 2021/22 and 2023/24. At the same time, there was in increase in the capital active in the fishery in 2022/23, which decreased in 2023/24. This led to an increase in the rate of return and a decrease in net economic return generated by the fishery over the same period.

Table S-1 Summary of key economic indicators for 2021/22 to 2023/24[a]

Indicator	2021/22	2022/23	2023/24
Catch (t)	144t	273t	338t
Days fished	319	589	514
Gross value of production (beach price)	$0.6m	$0.5m	$0.9m
Active businesses	23 businesses	39 businesses	29 businesses
Rate of return on total working capital	-16.5%	-21.1%	-13.4%
Fisheries fees/Gross value of production	4.6%	<0.1%	<0.1%
Active endorsement value per active business[b]	$63,153	$95,681	$115,992
Gross state product (direct + flow-on)[c]	$1.5m	$4.9m	$8.5m
Employment (direct + flow-on)[c]	20 fte jobs	65 fte jobs	82 fte jobs
Net economic return	-$0.9m	-$3.6m	-$2.0m
Net economic return/Gross value of production	-162.9%	-730.2%	-228.4%

[a] All values reported are in real 2023/24 dollars.

[b] Active Share Value refers to the value of shares held by active fishers.

[c] The results increase from 2022/23 is due to improved supply-chain modelling.

Source: BDO analysis

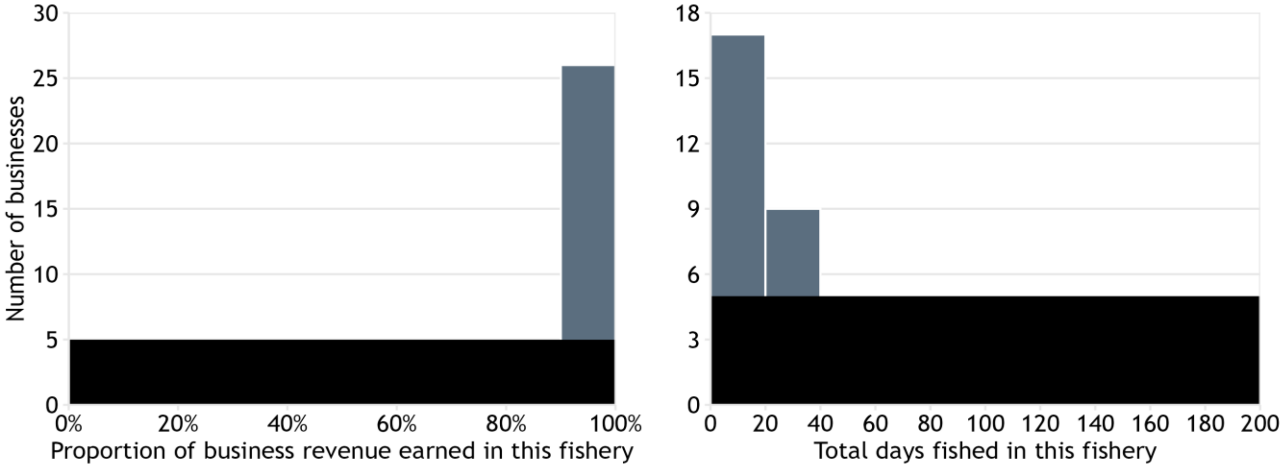
1. Introduction

This report presents economic indicators for the Sea Urchin and Turban Shell fishery for 2023/24. BDO was contracted by the Department of Primary Industries and Regional Development (DPIRD) to develop an independent economic and social indicator monitoring program to inform stakeholders with published financial, economic and social information about commercial fisheries in New South Wales (NSW). The objective is to inform discussions and decisions about fisheries management and to develop an understanding of the values supported by the industry. This report is complemented by a more comprehensive report 'Economic Indicators for NSW Commercial Fisheries for 2023/24' (BDO 2025) that describes the monitoring program in detail and presents results for all NSW commercial fisheries.

The Sea Urchin and Turban Shell fishery is a small, restricted fishery within New South Wales. Generally, sea urchin and turban shells are hand gathered by divers. Fishing occurs throughout the year depending on target species and for sea urchins specifically when the roe is well developed. The red sea urchin has size limits and has catch capped by a total allowable commercial catch yearly limit. There are also catch limits depending on which of the five regions a fisher is operating in.

The variation in businesses in the Sea Urchin and Turban Shell fishery in terms of proportion of revenue earned within the Sea Urchin and Turban Shell fishery and total days fished is presented in Figure 1-1. Each visible bar represents at least 5 businesses for confidentiality reasons. The black band along the horizontal axis covers the area between 0 and 4 businesses to ensure confidentiality. The limits of the horizontal axis are set to show non-confidential data only, which means there may be businesses with greater days fished than the maximum axis values.

Figure 1-1 Revenue share and days fished of businesses in the Sea Urchin and Turban Shell fishery in 2023/24



Source: 2025 survey and BDO analysis

Changes in this report

Compared to previous reports in this series, this report:

- Includes supplementary responses from the previous survey along with 2025 survey responses to bolster sample size and confidence
- Includes average valuation of shares table for access shares and quota shares within the fishery
- Includes a breakdown of supply chain including final sales and economic activity supported by supply chain activities
- Includes revised supply chain in the economic contribution estimates from 2022/23.

Data

The indicators are based on a confidential survey of fishing businesses undertaken in 2021, 2022 and 2025, and administrative data provided by Department of Primary Industries and Regional Development (DPIRD). Survey data are confidential and BDO will not provide individual data to DPIRD in any form that is not also appropriate to be published publicly, such as by aggregating responses into groups of at least 5 for any statistic (see BDO 2025 for details). All results in this report are calculated from a representative model of the fishery developed from survey data. At a high level, the data collected includes:

- Survey data:
  - Itemised costs of fishing, business administration and associated processing
  - Species prices and market destinations
  - Share values
  - Quota values
  - Working capital values (e.g. vessel, vehicles, buildings and equipment)
  - Perceptions of management, lifestyle and wellbeing.
- Department of Primary Industries and Regional Development data:
  - Fisher level fishing activity such as catch by species and effort, including spatial and temporal dimensions
  - Share ownership and trading
  - Licence fees
  - Catch disposal details
  - Species prices provided by Sydney Fish Market (as a contingency for gaps in survey-based prices only).

Method

Indicators were produced through a number of techniques including:

- Business level statistical matching and imputation
- Regional economic contribution analysis (using an input-output model approach)
- Established financial reporting techniques
- Data visualisation.

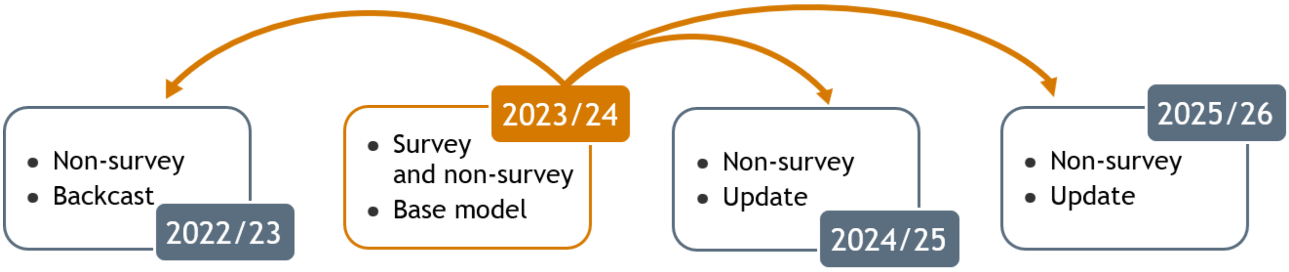
The supply chain analysis, developed under *FRDC Project 2022-038* (BDO 2023), used stakeholder input from six online workshops to map the post-harvest seafood and bait supply chains in NSW. These maps helped to illustrate the flow of products through various stages of the supply chain, from production to end use, and were then used to estimate the economic activity supported by these supply-chain activities.

The 2023/24 economic indicators for the New South Wales commercial fisheries were calculated using a range of primary and secondary data about 2023/24.

The 2022/23 economic indicators for the New South Wales commercial fisheries were calculated by backcasting the 2023/24 indicators using a range of primary and secondary data about 2022/23 and 2023/24.

Figure 1-2 summarises the fisheries reporting year and data approach for each financial year.

Figure 1-2 Methodology, 2022/23 to 2025/26

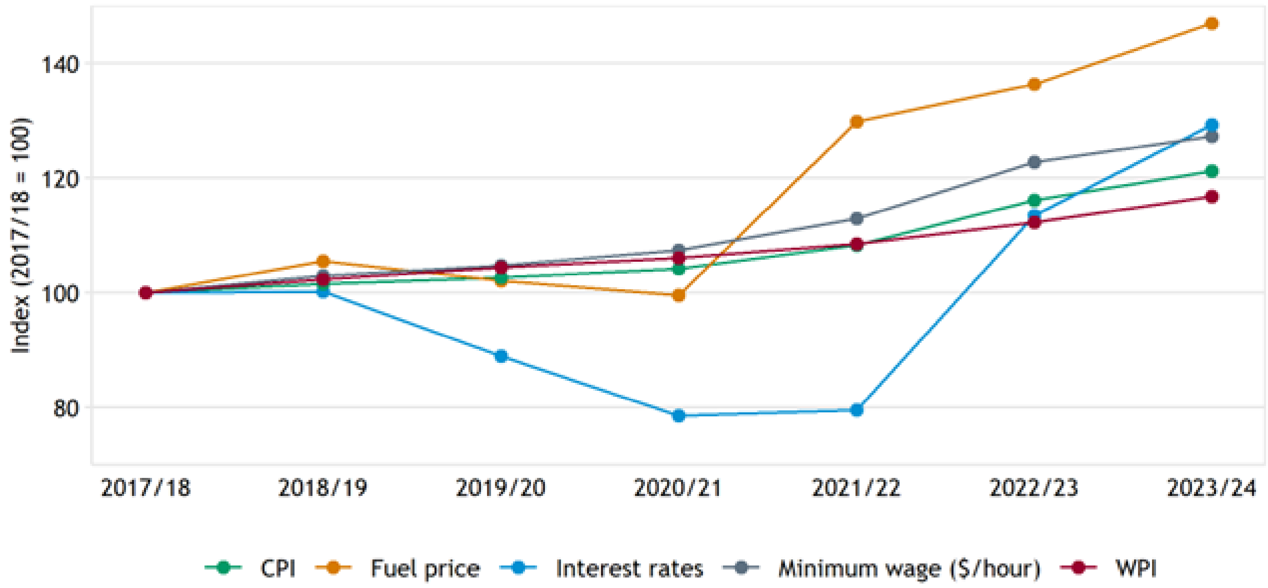


Fisheries monitoring and management data were obtained from NSW Department of Primary Industries and Regional Development for the 2022/23 financial year to adjust the 2023/24 indicators to reflect fishers' fishing and share trading activities in 2022/23. The imputation process involved calculating revenue using backcast species prices for 2022/23, then adjusting operating costs and employment for each business based on the difference in fishing effort and revenue between 2022/23 and 2023/24. Businesses that were active in 2022/23 but not 2023/24 were not represented in the base year data so were imputed in the same way as a non-surveyed business was for the 2023/24 indicators (see BDO 2025). Further, input prices were adjusted in line with changes in relevant cost indices. Figure 1-3 outlines the trend in each cost index for the past seven years and shows that the key feature of 2022/23 was that all indicators were lower compared to 2023/24. Finally, data on the 2022/23 financial year provided by DPIRD were used to quantify fishing licence fees and management costs.

Fish prices were backcast to 2022/23 prices from 2023/24 prices using relative changes in species prices observed in time series of price data provided by Sydney Fish Market and the Australian Bureau of Statistics trade data for exported species.

A description of the methods used to produce these indicators is presented in 'Economic Indicators for NSW Commercial Fisheries for 2023/24' (BDO 2025).

Figure 1-3 Input price indicator[a] trends, 2017/18 to 2023/24 financial years



[a] CPI = Consumer Price Index, Index Numbers, all groups CPI, Sydney; Minimum Wage ($/hour) = Fair Work Ombudsman, National Minimal Wage; Fuel Price = Consumer Price Index, Index Numbers, Automotive fuel, Sydney; WPI = Quarterly Index ; Ordinary time hourly rates of pay excluding bonuses; New South Wales; Private and Public; All industries; Interest Rates = Lending rates; Small business; Variable; Overdraft.

Source: BDO analysis

Indicators

This report presents on the following economic indicators:

- Business financial indicators
- Economic contribution indicators
- Fishery economic indicators.

Harvest Strategies

The NSW Harvest Strategies, developed under the NSW Fisheries Harvest Strategy Policy and Guidelines, provide a framework for ecologically sustainable development in fisheries. They set clear ecological, economic, social, and cultural objectives, guiding decision-making through performance indicators and reference points.

The Harvest Strategies focus primarily on catch and biomass indicators. Economic surveys are included in two strategies as a secondary indicator to measure economic performance. However, no reference or trigger points are in place.

The Sea Urchin and Turban Shell fishery is not currently subject to a harvest strategy.

Regions

Indicators for the Sea Urchin and Turban Shell fishery are reported at the state level only due to the small number of active fishers.

2. Survey of fishing businesses

Fishing businesses were invited to participate in surveys which collected various data items that are not held by NSW Department of Primary Industries and Regional Development but are required to calculate economic indicators.

Data were collected respecting the confidentiality of fishing businesses and were used by BDO to produce the economic indicator reports. The data were not distributed outside of BDO and may not be provided to NSW Department of Primary Industries and Regional Development without prior permission from the businesses in question.

2.1. Survey of fishing businesses, 2023/24

The survey of fishing businesses to collect information on the 2023/24 financial year was undertaken between March and May in 2025. Non-survey data were obtained from NSW DPIRD for the 2023/24 financial year.

The survey involved collecting data from fishing businesses for the 2023/24 financial year. Data were collected on species prices and markets, operating costs, processing activity, employment (including unpaid), endorsement values/leasing costs, capital value and depreciation, and social and demographic information. The survey used a questionnaire that was developed in collaboration with NSW DPIRD and with industry representatives. Businesses were asked to include only the amounts that were attributable to their NSW fishing business. If exact figures were not available (e.g. from a tax return), then they were asked to provide careful estimates.

The survey captured responses from 14 per cent of fishing businesses that were active in 2023/24. A business is considered active if it fished at least one day during 2023/24. Due to lower response rates, survey responses from the 2019 survey were used to supplement the sample, as long as they continued to operate in a similar way between the two survey years. The total sample, including both survey and supplementary responses, represents 17 per cent of active fishing businesses (Table 2-1).

Table 2-1 Survey sample from 2025 in the Sea Urchin and Turban Shell fishery

Fishing region	Active businesses	Survey responses	Total sample size[a]	% (total sample size)
Whole fishery	**29**	**4**	**5**	**17.2%**

[a] Total sample size includes survey and supplementary responses.

Source: BDO analysis

3. Catch, value, prices, and final sales destination

Catch, price, value and final sales destinations are shown in Table 3-1 for the species where the survey provided at least 5 observations (to maintain confidentiality), these prices were used to calculate indicators. The price shown for other species is not a specific price but an average price of all the species included within the other species grouping. The Sea Urchin and Turban Shell fishery produced 338 tonnes of catch and $900,000 in GVP (at beach price).

Trends in prices for key species are presented in Figure 3-1. Historic prices have been transformed into real terms to remove the distorting effect of inflation. In 2023/24, the average price was $2.64 per kg, an increase from $1.79 per kg in 2022/23 but a decrease from $4.74 per kg in 2019/20 (Figure 3-1). The increase in GVP between 2022/23 and 2023/24 was due to an increase in catch despite a decrease in price (Figure 3-2).

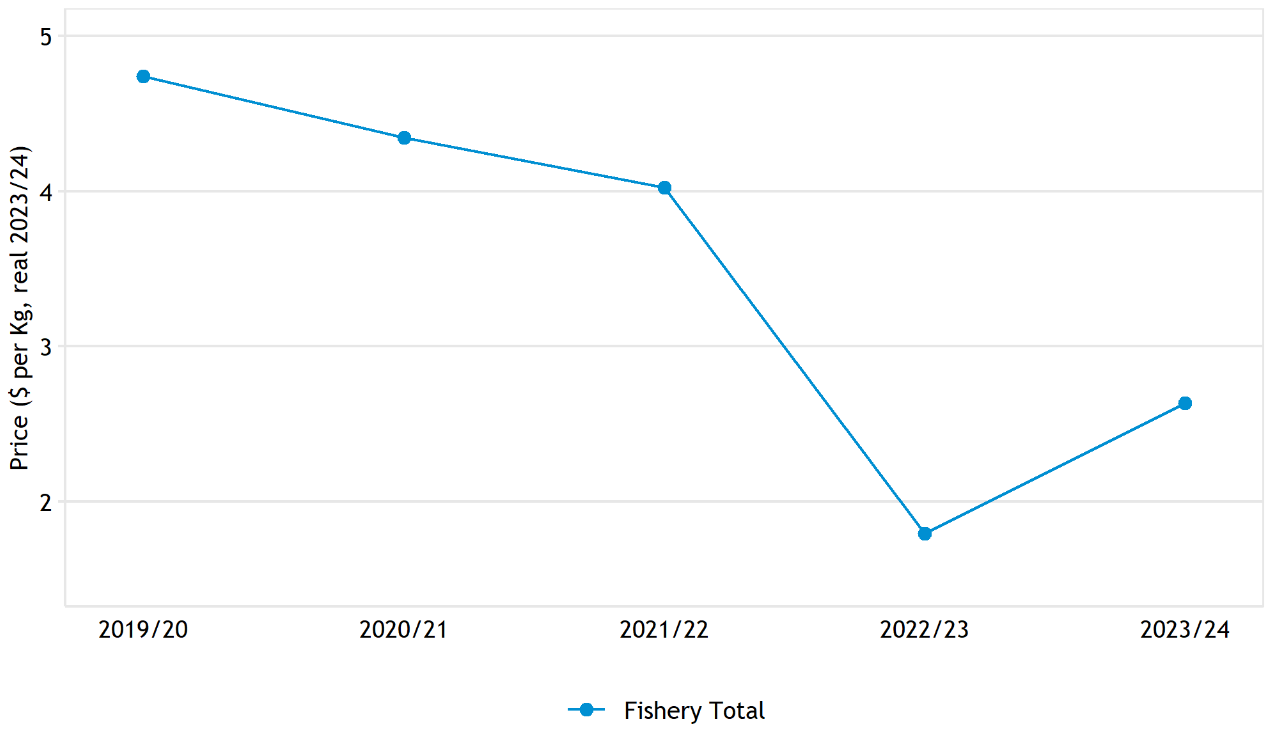
Final sales destinations include NSW (79.5 per cent), interstate (less than 0.1 per cent), and overseas export (20.5 per cent).

Table 3-1 Catch, GVP and final sales destination for the Sea Urchin and Turban Shell fishery in 2023/24

					Final sales destination (%)		
Species	Catch	Price	Unit	GVP ($m)	NSW	Interstate	Overseas
Fishery total	**338,078**	**$2.64**	**Kg**	**$0.9m**	**79.5%**	**<0.1%**	**20.5%**

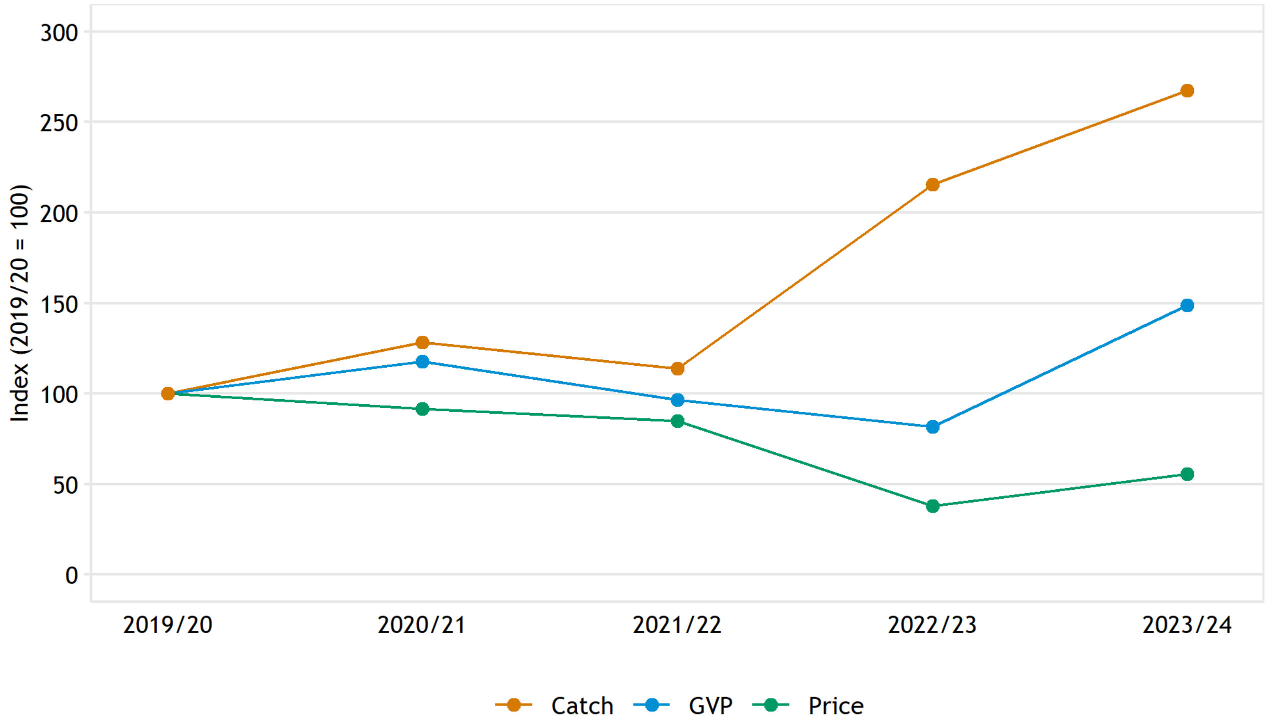
Source: BDO analysis

Figure 3-1 Prices for selected major species in the Sea Urchin and Turban Shell fishery, 2019/20 to 2023/24



Source: BDO analysis

Figure 3-2 GVP, price and catch indices for the Sea Urchin and Turban Shell Fishery, 2019/20 to 2023/24



Source: BDO analysis

4. Financial performance

This section presents a series of tables that describe the average financial performance of businesses in the Sea Urchin and Turban Shell fishery in 2023/24. Sample sizes outlined in these tables are from the 2023/24 and 2019/20 survey, on which the update to 2021/22 and 2022/23 indicators were based.

The average business refers to the average activity within the Sea Urchin and Turban Shell fishery of businesses that access the fishery, which means that a 'business' as represented in the financial indicators table may actually be just the proportion of the business attributable to the Sea Urchin and Turban Shell fishery. For example, a business that is active in both the Sea Urchin and Turban Shell fishery and another fishery will have their business activity (employment, expenditure, capital values, etc.) proportionally split between the financial indicators tables of the two fisheries.

Following the financial indicators tables, the value of assets, liabilities and equity of fishing businesses that accessed the Sea Urchin and Turban Shell fishery in 2023/24 is summarised.

4.1. Financial performance

Financial performance indicators are presented in Table 4-1 to Table 4-3 using the following various groupings:

- **Whole fishery:** provides an understanding of the average performance across the whole fishery.
- **Profitability quartiles:** provides an understanding of the performance of the average business in each profitability quartile (defined by return on investment). This allows comparison of business characteristics at different levels of profitability.
- **Activity level quartiles:** provides an understanding of the performance of the average business in each activity level quartile (by days fished). This allows comparison of the business characteristics of businesses with different levels of activity.
- **Fishery specialisation:** provides an understanding of the performance of businesses that are specialised in this fishery compared to those that earn more of their revenue in other fisheries. This allows comparison of the business characteristics of businesses with different levels of fishery specialisation.

Table 4-1 Financial performance of the average business in the Sea Urchin and Turban Shell fishery in 2021/22 to 2023/24[a]

Indicator		2021/22		2022/23		2023/24	
		Value per active business	%	Value per active business	%	Value per active business	%
Fishing businesses							
	Active businesses	23		39		29	
	Sample size	6		4		5	
Fishing activity							
	Days fished	14		15		18	
	Catch (kg)	6,260		6,990		11,658	
	Catch (no.)	-		-		-	
	Prop. of revenue earned in this fishery	89.7%		95.2%		92.8%	
Employment							
	Total jobs	1.9		2.1		2.0	
	Fte jobs	0.4		0.7		0.7	
(1)	**Gross income**	**$25,174**		**$12,534**		**$30,729**	
Variable costs							
	Bait/ice	$794	1%	$167	0%	$168	0%
	Fuel	$7,455	14%	$3,586	5%	$4,180	7%
	Labour - paid	$7,235	14%	$26,081	39%	$22,244	36%
(2)	Labour - unpaid	$10,240	19%	$6,346	9%	$6,125	10%
	Provisions	$163	0%	$416	1%	$453	1%
	Repairs & maintenance	$9,009	17%	$10,451	16%	$10,070	16%
	Other	$559	1%	$315	0%	$335	1%
(3)	**Total variable costs**	**$35,457**	**67%**	**$47,361**	**71%**	**$43,575**	**70%**
Fixed costs							
	Insurance	$3,578	7%	$6,122	9%	$5,773	9%
(4)	Interest	$640	1%	$1,070	2%	$1,079	2%
(5)	Labour - unpaid	$3,621	7%	$5,510	8%	$4,732	8%
(6)	Leasing of building, equipment & quota transfers	$0	0%	$0	0%	$0	0%
	Legal & accounting	$1,389	3%	$1,787	3%	$1,703	3%
	Fishing licence fees	$1,197	2%	$16	0%	$258	0%
	Office & admin	$1,317	2%	$563	1%	$548	1%
	Other licence fees	$1,259	2%	$991	1%	$925	1%
	Slipping & mooring	$1,329	3%	$25	0%	$23	0%
	Telephone etc.	$3,133	6%	$2,317	3%	$2,192	4%
	Travel	$142	0%	$1,317	2%	$1,221	2%
	Other	$0	0%	$0	0%	$0	0%
(7)	**Total fixed costs**	**$17,602**	**33%**	**$19,719**	**29%**	**$18,452**	**30%**
(8)	**Total boat cash costs (3+7)**	**$53,060**	**100%**	**$67,080**	**100%**	**$62,028**	**100%**
Profitability							
	Boat gross margin (1-3)	-$10,283		-$34,827		-$12,846	
(9)	Total unpaid labour (2+5)	$13,861		$11,856		$10,857	
	Gross operating surplus (1-8+9)	-$14,025		-$42,690		-$20,441	
(10)	Boat cash income (1-8)	-$27,886		-$54,546		-$31,299	
(11)	Depreciation	$6,402		$17,328		$16,669	
(12)	Boat business profit (10-11)	-$34,288		-$71,874		-$47,967	
(13)	Profit at full equity (12+4+6)[b]	-$33,119		-$70,803		-$46,889	
Boat capital							
(14)	Fishing gear and equipment	$127,013		$239,741		$232,821	
	Endorsement value	$63,154		$95,681		$115,992	
(15)	**Total working capital**	**$190,166**		**$335,423**		**$348,813**	
Rate of return							
	Rate of return on fishing gear and equipment (13[b]/14*100)	-24.1%		-29.5%		-20.1%	
	Rate of return on total working capital (13[b]/15*100)	-16.5%		-21.1%		-13.4%	

[a] All values reported are in real 2023/24 dollars.

[b] Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: BDO analysis

Table 4-2 Financial performance in the Sea Urchin and Turban Shell fishery in 2023/24, average business in each profitability quartile

Indicator		Return on investment quartile			
		Q1	Q2	Q3	Q4
Fishing businesses					
	Active businesses	8	7	7	7
	Sample size	1	0	0	4
Fishing activity					
	Days fished	23	14	12	21
	Catch (kg)	11,117	10,794	10,818	13,979
	Prop. of revenue earned in this fishery	100.0%	100.0%	100.0%	70.1%
Employment					
	Total jobs	2.2	2.2	2.2	1.5
	Fte jobs	0.8	0.8	0.8	0.4
(1)	**Gross income**	**$29,315**	**$27,337**	**$27,587**	**$38,880**
Variable costs					
	Bait/ice	$203	$167	$141	$155
	Fuel	$5,854	$3,166	$2,842	$4,618
	Labour - paid	$23,047	$21,152	$20,725	$23,936
(2)	Labour - unpaid	$8,553	$5,365	$4,572	$5,665
	Provisions	$612	$367	$331	$481
	Repairs & maintenance	$12,512	$10,227	$9,735	$7,457
	Other	$610	$232	$203	$256
(3)	**Total variable costs**	**$51,390**	**$40,676**	**$38,549**	**$42,569**
Fixed costs					
	Insurance	$6,113	$6,666	$6,485	$3,782
(4)	Interest	$1,118	$985	$1,050	$1,155
(5)	Labour - unpaid	$5,227	$5,853	$5,512	$2,265
(6)	Leasing of building, equipment & quota transfers	$0	$0	$0	$0
	Legal & accounting	$1,837	$1,853	$1,846	$1,254
	Fishing licence fees	$0	$0	$0	$1,069
	Office & admin	$669	$540	$538	$426
	Other licence fees	$924	$1,156	$1,087	$532
	Slipping & mooring	$22	$31	$29	$10
	Telephone etc.	$2,329	$2,465	$2,385	$1,569
	Travel	$1,177	$1,523	$1,449	$741
	Other	$0	$0	$0	$0
(7)	**Total fixed costs**	**$19,416**	**$21,072**	**$20,380**	**$12,803**
(8)	**Total boat cash costs (3+7)**	**$70,806**	**$61,749**	**$58,930**	**$55,372**
Profitability					
	Boat gross margin (1-3)	-$22,075	-$13,340	-$10,962	-$3,689
(9)	Total unpaid labour (2+5)	$13,779	$11,218	$10,084	$7,929
	Gross operating surplus (1-8+9)	-$27,712	-$23,194	-$21,258	-$8,563
(10)	Boat cash income (1-8)	-$41,491	-$34,412	-$31,342	-$16,492
(11)	Depreciation	$16,785	$19,499	$19,238	$11,136
(12)	Boat business profit (10-11)	-$58,277	-$53,911	-$50,580	-$27,628
(13)	Profit at full equity (12+4+6)[a]	-$57,158	-$52,926	-$49,530	-$26,473
Boat capital					
(14)	Fishing gear and equipment	$240,445	$258,127	$261,227	$170,396
	Endorsement value	$93,750	$100,000	$100,000	$173,395
(15)	**Total working capital**	**$334,195**	**$358,127**	**$361,227**	**$343,791**
Rate of return					
	Rate of return on fishing gear and equipment (13[a]/14*100)	-23.8%	-20.5%	-19.0%	-15.5%
	Rate of return on total working capital (13[a]/15*100)	-17.1%	-14.8%	-13.7%	-7.7%

[a] Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: BDO analysis

Table 4-3 Financial performance in the Sea Urchin and Turban Shell fishery in 2023/24, average business in each days fished quartile

Indicator		Days fished quartile Q1	Q2	Q3	Q4
Fishing businesses					
	Active businesses	8	7	7	7
	Sample size	1	2	1	1
Fishing activity					
	Days fished	3	11	21	37
	Catch (kg)	1,790	7,952	15,782	22,518
	Prop. of revenue earned in this fishery	88.9%	95.1%	100.0%	87.7%
Employment					
	Total jobs	1.9	2.0	2.2	1.9
	Fte jobs	0.7	0.7	0.8	0.6
(1)	**Gross income**	**$4,556**	**$20,738**	**$40,189**	**$61,173**
Variable costs					
	Bait/ice	$33	$93	$207	$357
	Fuel	$794	$2,472	$4,954	$8,983
	Labour - paid	$4,615	$13,194	$31,969	$41,716
(2)	Labour - unpaid	$1,073	$3,450	$8,651	$12,048
	Provisions	$105	$205	$482	$1,072
	Repairs & maintenance	$7,321	$7,947	$11,853	$13,551
	Other	$57	$125	$611	$588
(3)	**Total variable costs**	**$13,997**	**$27,487**	**$58,728**	**$78,315**
Fixed costs					
	Insurance	$5,868	$5,786	$6,273	$5,153
(4)	Interest	$829	$1,172	$1,067	$1,283
(5)	Labour - unpaid	$5,181	$4,527	$5,579	$3,575
(6)	Leasing of building, equipment & quota transfers	$0	$0	$0	$0
	Legal & accounting	$1,636	$1,688	$1,833	$1,662
	Fishing licence fees	$62	$820	$0	$179
	Office & admin	$450	$517	$697	$540
	Other licence fees	$957	$831	$975	$932
	Slipping & mooring	$26	$23	$24	$17
	Telephone etc.	$2,054	$2,158	$2,443	$2,131
	Travel	$1,314	$1,239	$1,232	$1,085
	Other	$0	$0	$0	$0
(7)	**Total fixed costs**	**$18,377**	**$18,762**	**$20,124**	**$16,558**
(8)	**Total boat cash costs (3+7)**	**$32,374**	**$46,248**	**$78,852**	**$94,873**
Profitability					
	Boat gross margin (1-3)	-$9,441	-$6,749	-$18,539	-$17,143
(9)	Total unpaid labour (2+5)	$6,254	$7,978	$14,231	$15,623
	Gross operating surplus (1-8+9)	-$21,564	-$17,533	-$24,432	-$18,077
(10)	Boat cash income (1-8)	-$27,818	-$25,510	-$38,662	-$33,700
(11)	Depreciation	$17,808	$17,330	$16,579	$14,796
(12)	Boat business profit (10-11)	-$45,626	-$42,840	-$55,241	-$48,496
(13)	Profit at full equity (12+4+6)[a]	-$44,797	-$41,668	-$54,174	-$47,214
Boat capital					
(14)	Fishing gear and equipment	$240,835	$242,329	$229,642	$217,332
	Endorsement value	$85,015	$110,714	$130,538	$142,126
(15)	**Total working capital**	**$325,850**	**$353,043**	**$360,180**	**$359,459**
Rate of return					
	Rate of return on fishing gear and equipment (13[a]/14*100)	-18.6%	-17.2%	-23.6%	-21.7%
	Rate of return on total working capital (13[a]/15*100)	-13.7%	-11.8%	-15.0%	-13.1%

[a] Part of leasing and rent is assumed to cover depreciation of buildings and equipment so is excluded from profit at full equity.

Source: BDO analysis

Fishing activity

The average business that accessed the Sea Urchin and Turban Shell fishery in 2023/24 employed 0.7 fte jobs and fished on 18 days of the year, an increase from 15 days of fishing on average in 2022/23 and 14 days in 2021/22 (Table 4-1).

Revenue and costs

Average gross income was $30,729 and average total variable costs was $43,575, producing an average boat gross margin of -$12,846. Average total fixed costs was $18,452 which produces an average gross operating surplus of -$20,441 (excluding unpaid labour), down from -$42,690 in 2022/23 but up from -$14,025 in 2021/22 (Table 4-1).

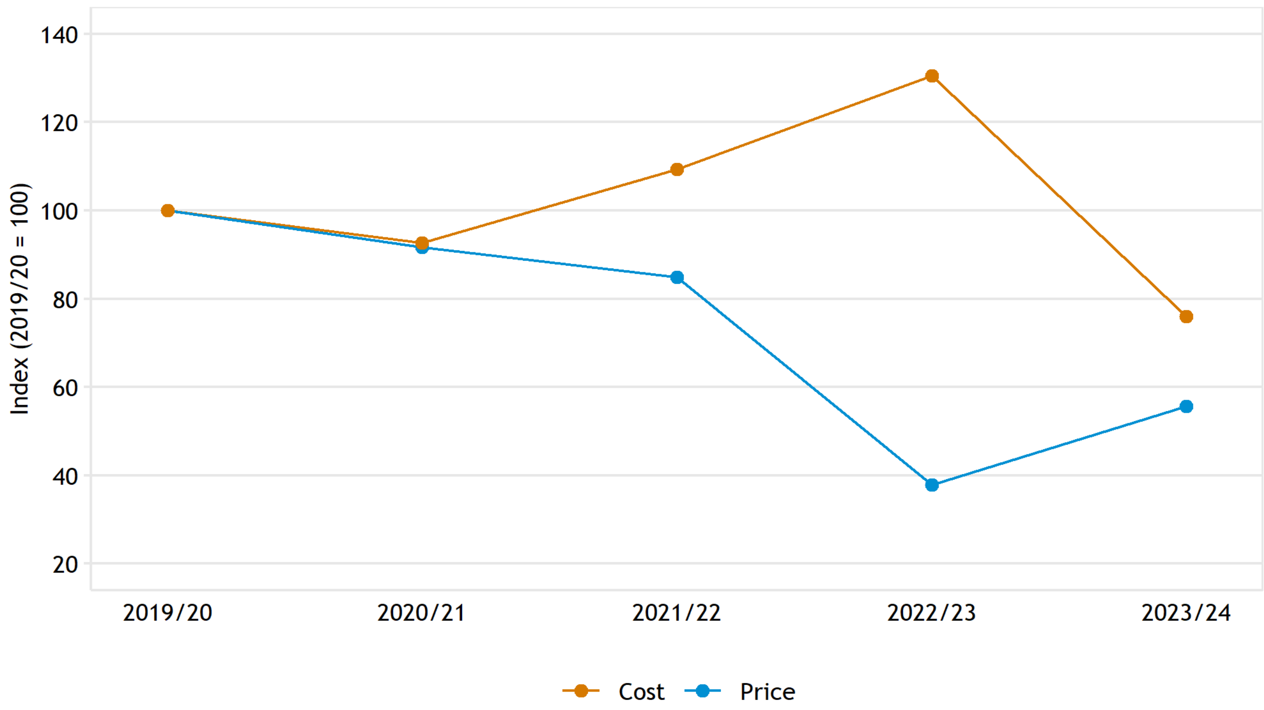
Profitability

Average boat business profit, which accounts for depreciation and unpaid labour, was -$47,967. Average profit at full equity, which excludes any leasing and interest costs, was -$46,889. Dividing profit at full equity by the value of capital produces a return on investment of -20.1 per cent for 2023/24 (down from -29.5 per cent in 2022/23 and -24.1 per cent in 2021/22) including the capital value of fishing gear and equipment only, or-13.4 per cent (down from -21.1 per cent in 2022/23 and -16.5 per cent in 2021/22) when also including the capital value of fishery shares or licences (Table 4-1).

Cost prize squeeze

Price and cost indices for the Sea Urchin and Turban Shell Fishery for the years 2019/20 to 2023/24 are summarised in Figure 4-1. These indicators are derived from the average price and average cost per kilogram of catch. Between 2019/20 and 2023/24, the average cost decreased in real terms after a spike in 2022/23, while the average price initially decreased and then increased in 2023/24, reducing the squeeze on profits in the fishery.

Figure 4-1 Cost and price indices in the Sea Urchin and Turban Shell fishery, 2019/20 to 2023/24



Source: BDO analysis

4.2. Assets, liabilities, and equity

Commercial fishing businesses in New South Wales utilise valuable fishery shares, vessels or vehicles and other working capital. They may hold cash and may also hold debt to finance the business and other liabilities. The total assets held by a business less its total liabilities is the business' equity, which can be expressed in dollar terms or as a percentage of total asset value. The averages are based on business asset and debt data collected in the 2023/24 survey. The average is of whole businesses and includes the share values for all fisheries that they access, unlike the financial indicator tables above which present averages of proportions of businesses that access the fishery.

Results for 2023/24 of all surveyed businesses that access the Sea Urchin and Turban Shell fishery is not presented in this report due to confidentiality.

Share values in the Sea Urchin and Turban Shell fishery are shown in Table 4-4. Values are self-reported by respondents in the 2024/25 survey and shown where the surveys provided at least 5 observations (to maintain confidentiality), these prices were used to calculate indicators. Share values for other fisheries are shown in 'Economic Indicators for NSW Commercial Fisheries for 2023/24' (BDO 2025).

Table 4-4 Share values in the Sea Urchin and Turban Shell fishery, 2023/24

Endorsement	Abbreviation	Value per unit
Access share		
Sea Urchin and Turban Shell - Sea Urchin	SUTSSU	$100,000
Sea Urchin and Turban Shell - Turban Shell	SUTSTS	$75,000

Source: BDO analysis

5. Economic contribution

Estimates of the economic contribution of the Sea Urchin and Turban Shell fishery to the NSW and regional economies in 2023/24 are outlined in this section.

Economic contribution analysis is a descriptive analysis that traces the gross economic activity of the fishery as dollars of expenditure cycle through the regional and state economies. The analysis utilised the detailed industry specific data reported above in combination with other regional/state data that describe the linkages that exist within the regional economies.

Contribution or impact?

An *economic contribution analysis* (presented in this report) can be thought of as a *footprint* or *snapshot* analysis of economic activity. It is distinctly different to an *economic impact analysis*, which can be thought of as an analysis of a *change* in economic activity (not the subject of this report). An *economic impact analysis* is an appropriate approach for evaluating a *change* where an industry is generating new revenues that would otherwise not occur, keeping revenues in the region that would otherwise be lost, or being subject to changes that result in existing revenues being lost.

Direct and flow-on effects

The following types of activity are presented in this report as *direct* economic contribution:

- the landed beach value of production
- the sustaining capital expenditure of fishing businesses
- the margin value of each stage of the supply chain.

Each of these activities generates flow-on effects to other sectors through purchases of inputs and the employment of labour. These effects have been estimated using input-output analysis (BDO 2025).

Post-harvest supply chain

Figure 5-1 illustrates the direct output at key stages of the Sea Urchin and Turban Shell supply chain used to calculate economic contribution, along with the final sales destinations (indicated by green arrows). The market destination values in Figure 5-1 differ from those implied by Table 3-1 as Figure 5-1 captures all value-added products downstream of the landed catch, while Table 3-1 captures catch exported by fishers or processors at beach price.

In 2023/24, the value of output from fishing (also known as GVP) generated in the Sea Urchin and Turban Shell fishery was $900,000. The product then moved through processing and marketing, including wholesaling, which generated approximately $2.7 million. Around 80 per cent of the product was distributed across the food services and retail sectors within the NSW market, generating an additional $3.4 million and $509,000, respectively. The remaining 20 per cent was directly exported. Supporting transport activities contributed a further $199,000.

This resulted in a total final sales value of $7.6 million, comprising less than $100,000 in interstate export sales, $779,000 in overseas export sales, and the remainder in NSW sales.

Figure 5-1 Sea Urchin and Turban Shell post-harvest supply chain, direct output generated by each sector ($m)

Source: BDO analysis

Economic contribution indicators

Economic contributions have been specified in terms of the following indicators.

- Value of output (direct only and equivalent to gross value of production or GVP)
- Employment (fte and total jobs)
- Household income
- Gross regional (and state) product.

5.1. Economic contribution to New South Wales

The estimated economic contribution of the Sea Urchin and Turban Shell fishery to New South Wales in 2023/24 is presented in Table 5-1.

Direct contribution measures fishing and downstream activities (i.e. post-harvest supply chain and capital expenditure). Flow-on contribution measures the economic effects in other sectors of the economy (retail and wholesale trade, manufacturing, etc.) generated by fishing and post-harvest supply chain activities, that is, the multiplier effects. Flow-on effects are disaggregated by industry with the top 10 industries shown separately in the table. Capital expenditures are assumed to be the same as depreciation (i.e. sustaining the capital stock) which may or may not be the case in a given year but is a reasonable assumption in the long-run. Economic contribution of capital expenditure should, therefore, be interpreted as a long-run average.

Value of output

The value of output at beach price (also known as GVP) generated directly in the Sea Urchin and Turban Shell fishery in 2023/24 was $900,000. The remainder of the post-harvest supply chain generated an additional $6.9 million in output (Table 5-1).

Household income

Estimated household income of $1.0 million was earned in 2023/24 in the Sea Urchin and Turban Shell fishery (wages of employees and estimated drawings by owner/operators) while associated post-harvest supply chain and capital expenditure by fishing businesses additionally generated $1.9 million in household income.

Flow-on business activity was estimated to support a further $2.7 million of household income in 2023/24 state-wide. The estimated total household income contribution in New South Wales was $5.6 million in 2023/24 (Table 5-1), an increase from $4.2 million in 2022/23.

Table 5-1 Economic contribution to New South Wales of the Sea Urchin and Turban Shell fishery in 2023/24

Sector	Output ($m)	Gross state product ($m)	Household income ($m)	Employment (fte jobs)	Employment (total jobs)
Direct					
Fishing business operation	0.9	0.3	1.0	20	58
Fishing business capital expenditure	0.2	<0.1	<0.1	<1	1
Processing and marketing	2.7	1.1	0.4	5	4
Transport	0.2	0.1	<0.1	<1	1
Retail	0.5	0.3	0.2	3	4
Food service	3.4	1.8	1.2	22	29
Total direct	**7.8**	**3.6**	**2.9**	**52**	**97**
Flow-on					
Retail trade		0.4	0.3	4	5
Personal & other services		0.2	0.2	3	3
Admin support services		0.3	0.2	3	3
Professional, scientific & technical services		0.4	0.4	3	3
Food & beverage services		0.2	0.2	2	3
Health & community services		0.2	0.2	2	3
Wholesale trade		0.3	0.2	2	2
Finance		0.4	0.1	1	1
Insurance & other financial services		0.2	0.1	1	1
Education & training		0.1	0.1	1	1
Other sectors		2.2	0.7	7	7
Total flow-ons		**4.9**	**2.7**	**30**	**31**
Total contribution		**8.5**	**5.6**	**82**	**128**

Source: BDO analysis

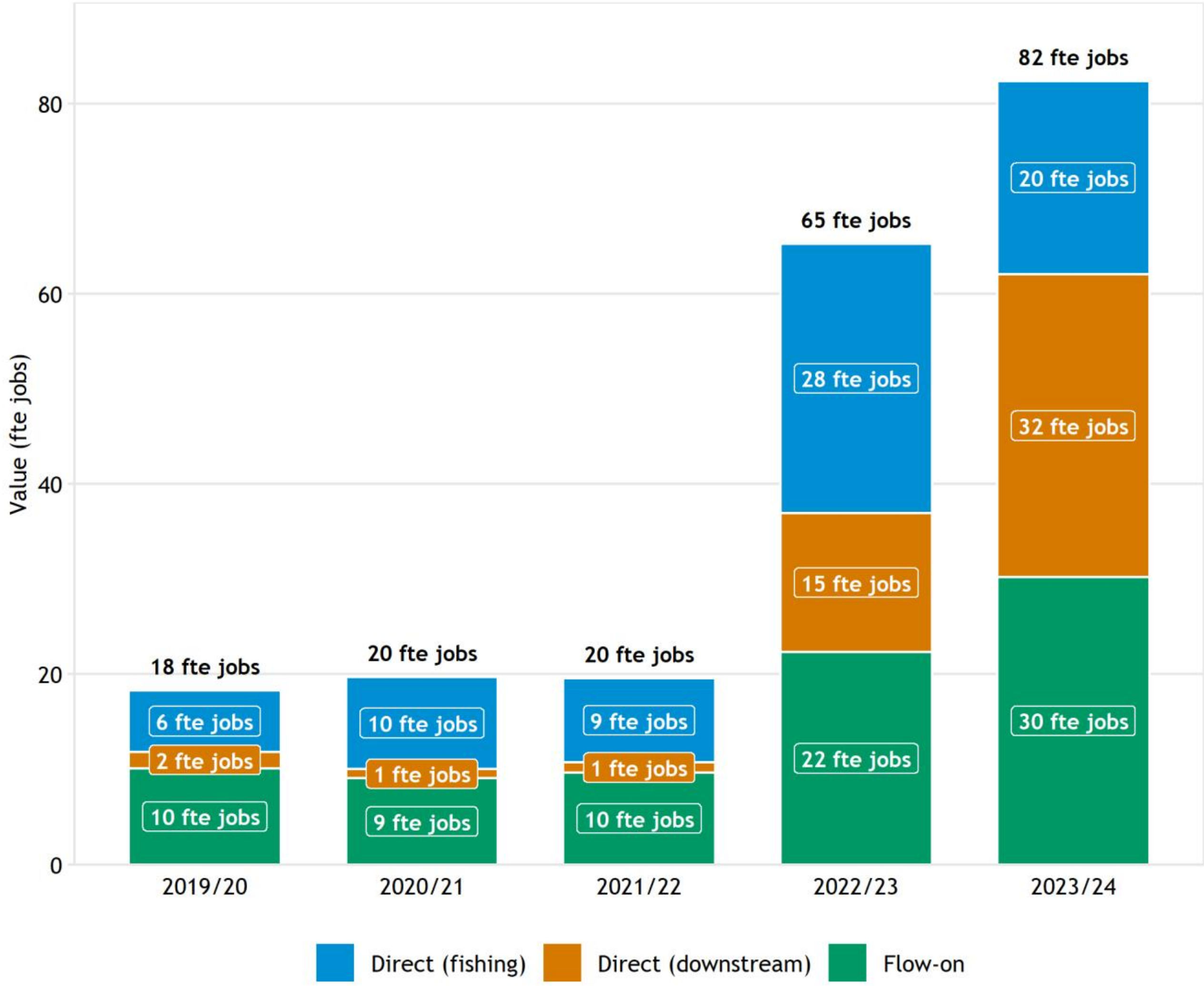
Employment

The Sea Urchin and Turban Shell fishery directly contributed an estimated 20 fte jobs in 2023/24 while associated seafood post-harvest supply chain of catch and capital expenditure by fishing businesses supported additional employment of 32 fte jobs (Table 5-1).

Flow-on business activity was estimated to support a further 30 fte jobs in 2023/24 state-wide. These jobs were concentrated in the retail trade, food and beverage services, personal and other services sectors. The total employment contribution to New South Wales was estimated to be 82 fte jobs in 2023/24, up from 65 fte jobs in 2022/23 (Figure 5-2).

The economic contribution to employment of the Sea Urchin and Turban Shell fishery between 2019/20 to 2023/24 is illustrated in Figure 5-2. Direct employment has increased since 2019/20 from around 6 fte jobs to 20 fte jobs in 2023/24. Direct downstream effects saw a significant increase over the same period which is driven by the inclusion of additional supply chain activities in 2022/23. Flow-on business activity saw an increase from 10 fte jobs in 2019/20 to 30 fte jobs in 2023/24. Overall total employment has increased.

Figure 5-2 Economic contribution to employment of the Sea Urchin and Turban Shell Fishery, 2019/20 to 2023/24[a]



[a] The results increase from 2022/23 is due to improved supply-chain modelling.

Source: BDO analysis

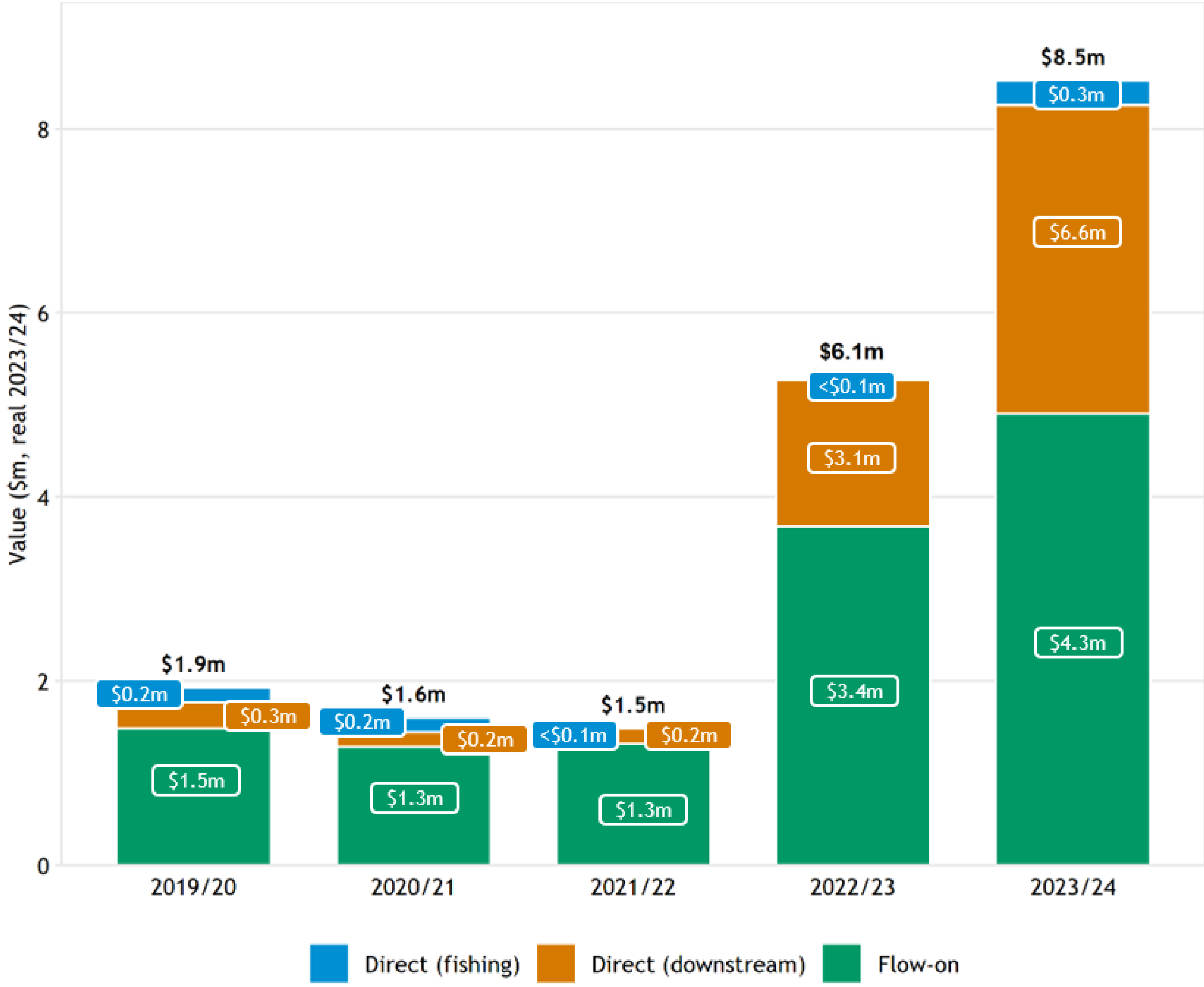
Contribution to GSP

Contribution to GSP is measured as value of output less the cost of goods and services (including imports but excluding wages) used in producing the output. Estimated GSP of around $300,000 was produced in 2023/24 by the Sea Urchin and Turban Shell fishery while the associated post-harvest supply chain and capital expenditure by fishing businesses generated an estimated additional $3.4 million in GSP.

Flow-on business activity was estimated to support a further $4.9 million of GSP in 2023/24 state-wide. The estimated total GSP contribution in New South Wales was $8.5 million in 2023/24 (Table 5-1), an increase from $4.9 million in 2022/23 (Figure 5-3).

Figure 5-3 illustrates the total economic contribution (direct and flow-on effects) of the fishery to GSP. Direct contribution to fishing has decreased from $0.2 million in 2019/20 to $0.3 million in 2023/24. Direct downstream effects have significantly increased over the same period which is driven by the inclusion of additional supply chain activities in 2022/23. Flow-on business activity have increased between 2019/20 and 2023/24 from $1.5 million to $4.9 million. Overall economic contribution to GSP has increased.

Figure 5-3 Economic contribution to GSP of the Sea Urchin and Turban Shell Fishery, 2019/20 to 2023/24[a]



[a] The results increase from 2022/23 is due to improved supply-chain modelling.

Source: BDO analysis

6. Net economic return

Net economic return is the long-run profit from a fishery after all costs have been met, including fuel, crew costs, repairs, the opportunity cost of family and owner labour, fishery management costs, depreciation and the opportunity cost of capital (excluding endorsement) (Bath et al. 2018). These unit costs or long-term costs all need to be covered if the fishing business is to remain viable in the fishery. The cost of fisheries management is included as a cash cost to fishing businesses through licence fees, though this likely underestimates the cost of fisheries management as this cost is not fully recovered from businesses. The opportunity cost of capital is equivalent to what the fisher's investment could have earned in the next most similar alternative use considering risk and skills required. What remains after the value of these inputs (labour, capital, materials and services) has been netted out is the net economic return.

Commercial fishing operations in Australia are not risk free. Returns can be impacted both positively and negatively by factors such as natural events, changes in market conditions, disease, and management regulations. Determining the opportunity cost of capital involves an assessment of the degree of financial risk involved in the activity. For a risk-free operation, an appropriate opportunity cost of capital might be the long-term real rate of return on government bonds. The greater the risks involved, the greater is the necessary return on capital to justify the investment in that particular activity. For this analysis an opportunity cost of capital of 10 per cent has been used with sensitivity analysis at 7 and 15 per cent. The lower-bound is consistent with ABARES Australian fisheries economic indicator reporting for commonwealth managed fisheries (Bath et al. 2018). Commonwealth managed fisheries are generally larger and characterised by larger businesses with less overall variation than state managed inshore fisheries. This is why the 7 per cent used by ABARES is used as a lower-bound in this analysis. The upper-bound of 15 per cent represents a reasonable estimate for what an investor might expect when buying into a commercial fishery in New South Wales, given the variability and risk involved in this type of fishing business.

The net economic return results are presented in Table 6-1. Assuming an opportunity cost of capital of 10 per cent, net economic return generated in the Sea Urchin and Turban Shell fishery was estimated to be -$2.0 million in 2023/24, an increase from -$3.6 million in 2022/23 in real terms.

Table 6-1 Net Economic Return of the Sea Urchin and Turban Shell fishery in 2023/24

	Value ($m)
Gross value of production	0.9
Less labour costs	1.0
Less materials & services	0.8
Less depreciation	0.5
Less opportunity cost of capital (10%)	0.7
Net economic return	**-2.0**

Source: BDO analysis

The sensitivity analysis in Table 6-2 shows that, with the varying assumptions about opportunity cost of capital, net economic return was likely in the range of -$2.4 million to -$1.8 million.

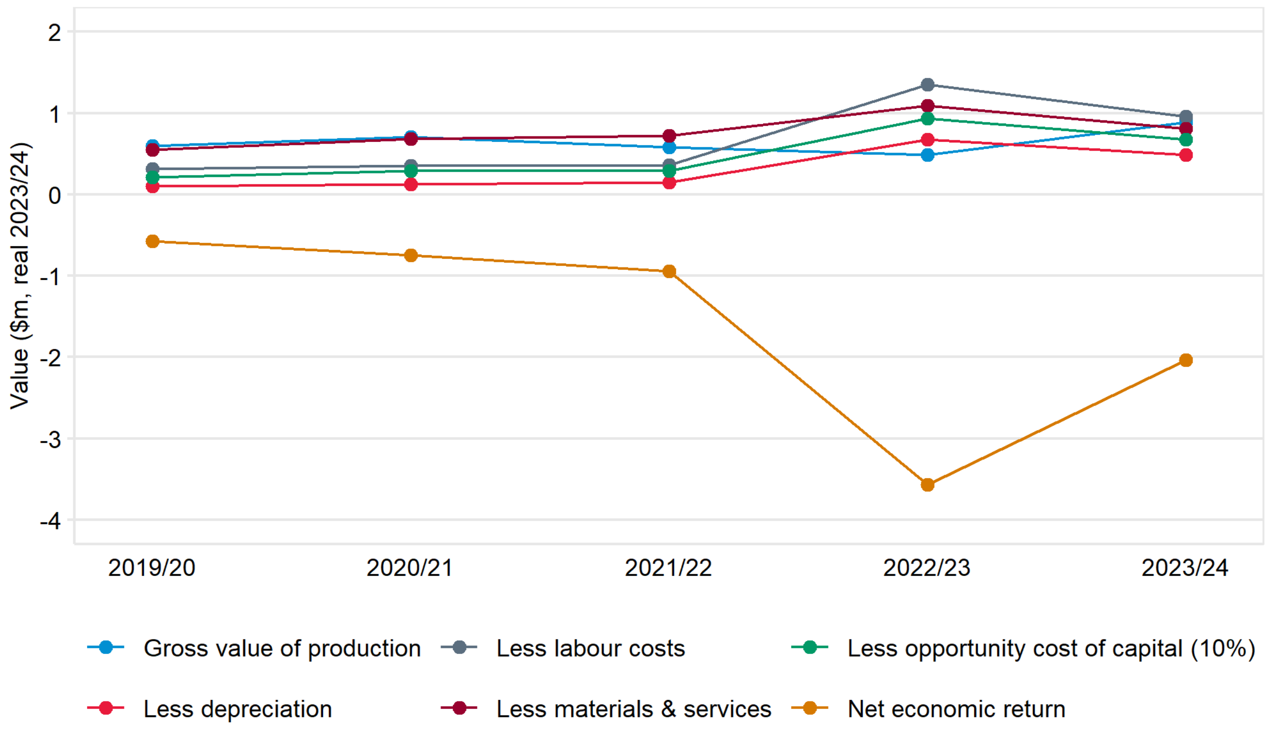
NER illustrated in Figure 6-1 shows an overall downward trend between 2019/20 and 2023/24. NER significantly declined in 2022/23 due to an increase in depreciation and opportunity cost of capital. The other indicators moved only marginally between 2019/20 and 2023/24.

Table 6-2 Sensitivity of Net Economic Return

Opportunity cost of capital (%)	7%	10%	15%
Less opportunity cost of capital ($m)	0.5	0.7	1.0
Net economic return ($m)	-1.8	-2.0	-2.4

Source: BDO analysis

Figure 6-1 Net economic return for the Sea Urchin and Turban Shell fishery, 2019/20 to 2023/24

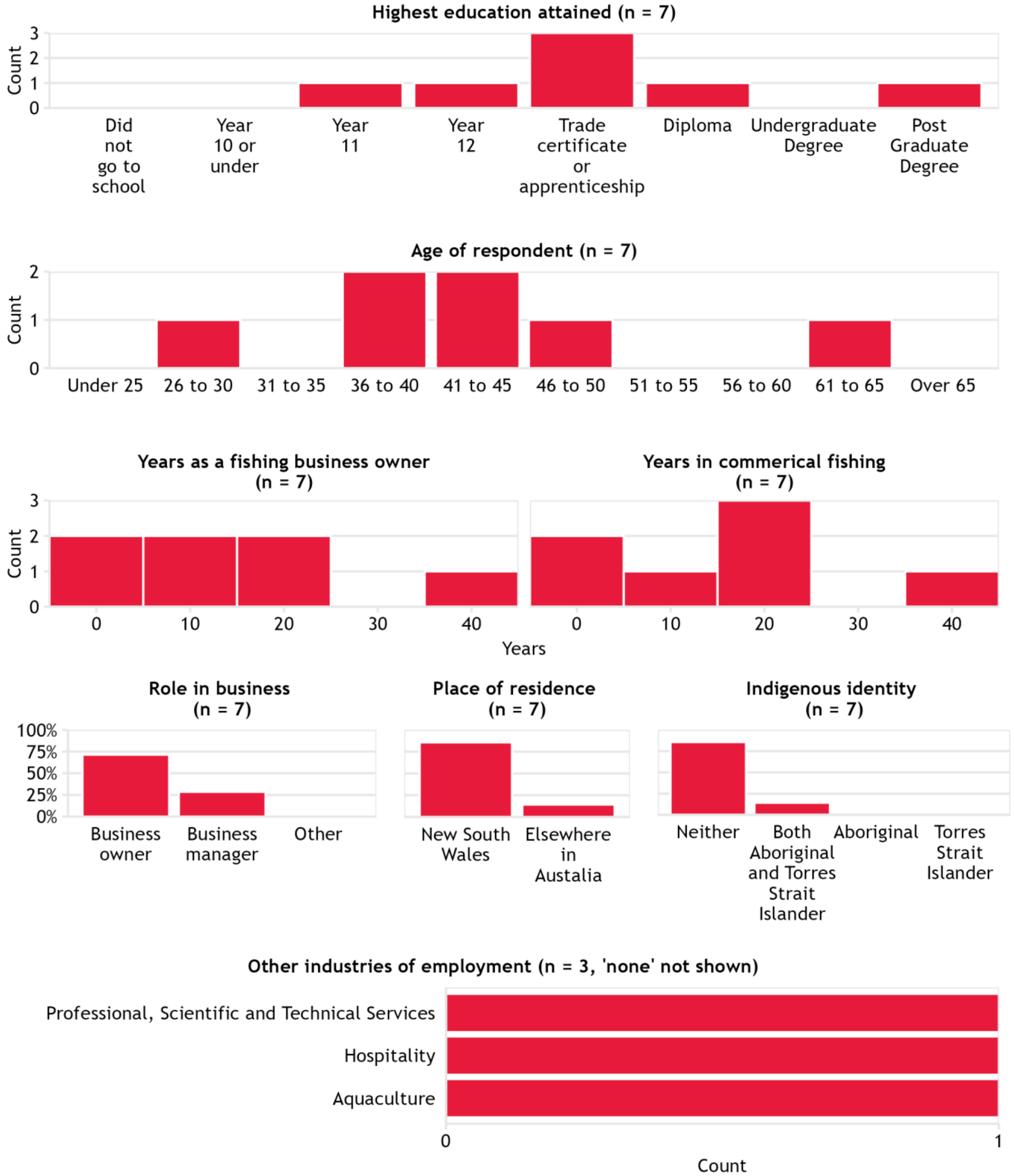


Source: BDO analysis

7. Demographics

Figure 7-1 present a demographic profile of fishers who accessed the Sea Urchin and Turban Shell fishery in New South Wales in 2023/24.

Figure 7-1 Demographic profile of the Sea Urchin and Turban Shell fishery, 2023/24



Source: 2025 survey

8. Social indicators

Fishers may derive non-financial benefits or costs from the Sea Urchin and Turban Shell fishery and may contribute to the community in different ways. This section presents a series of social indicators including:

- Perceptions of management
- Lifestyle and satisfaction
- Personal wellbeing
- Community contribution.

Questions were asked on a point scale of 0 to 10, the annual change is then presented as the change from the average point of 2019/20 to the average point of 2023/24. The results for each fishery are calculated from the unweighted sub-sample of fishers who accessed each fishery during 2023/24.

The results in this section should be interpreted with caution due to potential non-response bias. Since participation in the survey was voluntary, the findings may disproportionately reflect the views of those who chose to respond.

8.1. Management

Figure 8-1 to Figure 8-3 presents fishers' perceptions of different aspects of fishery management and participation in management.

Understanding and compliance with regulation

Fishers who access the Sea Urchin and Turban Shell fishery were unanimous (100 per cent) in agreement that they had a good understanding of the fishing rules and regulations that apply to their fishing activities, and that most commercial fishers comply with fishing rules and regulations. These have increased by 0.4 points and 0.5 points respectively since fishers were asked in 2019/20. Around 86 per cent of fishers who access the Sea Urchin and Turban Shell fishery indicated that they were inclined to report other people for doing the wrong thing with respect to fishing rules and regulations. However, this has decreased since 2019/20 and some disagreed that they would do this. Overall, these results indicate a high level of stewardship amongst fishers who access the Sea Urchin and Turban Shell fishery which is associated with lower costs of management and compliance activities, and a greater ability to achieve ecological sustainability.

Confidence in fisheries management

Importantly, 71 per cent of fishers who access the Sea Urchin and Turban Shell fishery do not trust DPIRD Fisheries to make the right decisions for managing commercial fishing in NSW. Although this has increased by 0.4 points. This indicates that there may be problems in terms of management achieving desired social outcomes. Fishers are more likely to trust fisheries management if they feel the processes used to make decisions are transparent. Around 57 per cent of fishers who access the Sea Urchin and Turban Shell fishery indicated that it is easy to understand the information DPIRD Fisheries produces (decreased by 1.1 points) and that it was easy to access information about commercial fishing management in NSW. Over three quarters (86 per cent) indicated that they understand how fisheries management decisions are made, a significant increase of 2.5 points. However, 86 per cent of fishers who access the Sea Urchin and Turban Shell fishery also indicated that they did not feel that consultation processes are satisfactory and 71 per cent felt that fisheries management is flexible enough (down by 1.9 and 1.0 points respectively). Approximately 57 per cent of fishers who access the Sea Urchin and Turban Shell fishery indicated that they know how to have a say in fishery management.

These perceptions suggest that transparency may be affecting trust in fisheries management. However, fishers who access the Sea Urchin and Turban Shell fishery show a better ability to access and understand the information produced by DPIRD Fisheries than most NSW fisheries.

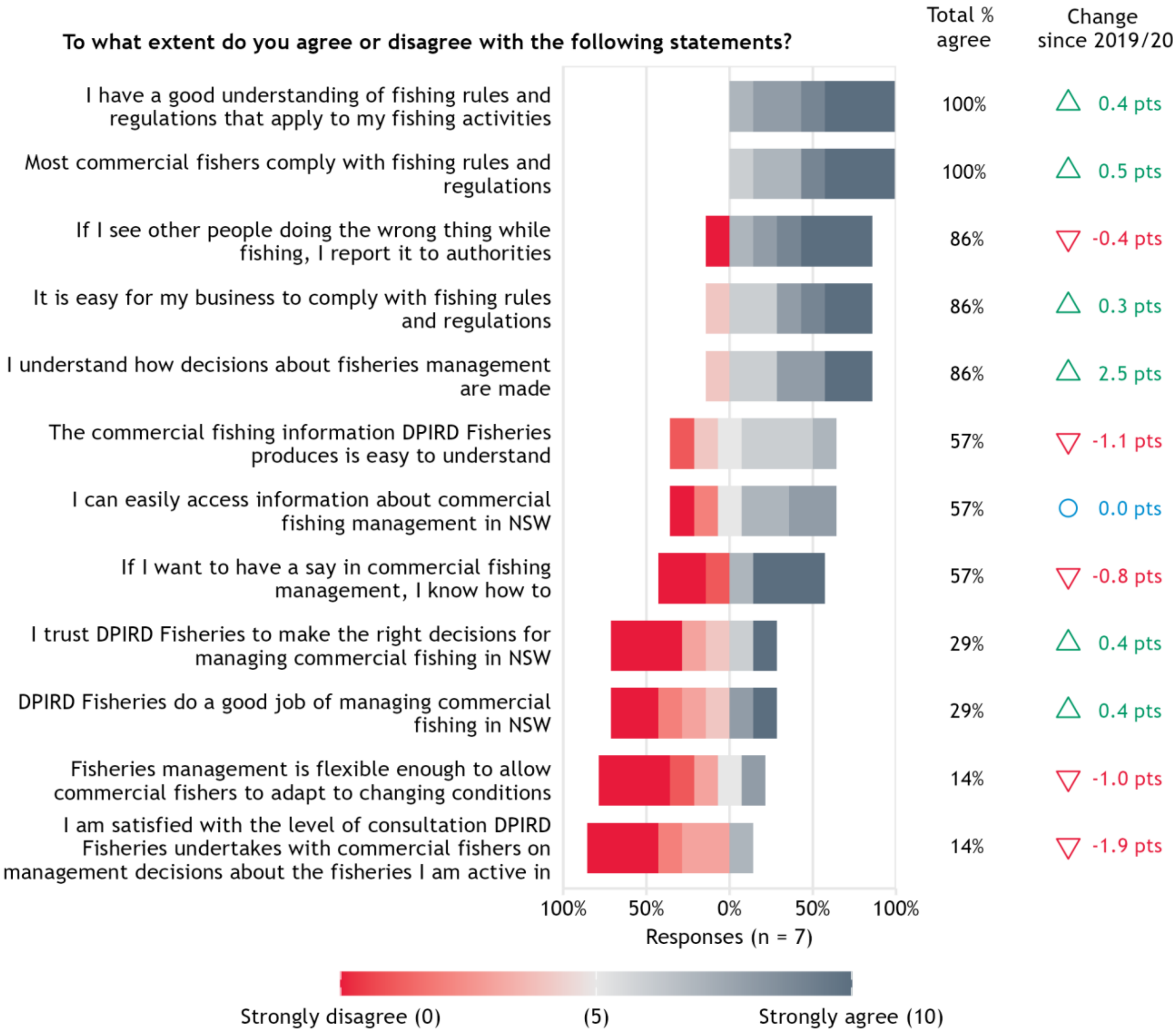
Perceptions of management fairness

Most fishers who access the Sea Urchin and Turban Shell fishery indicated that they felt fairly treated by fisheries managers in relation to allocation of catch and gear restrictions. However, 57 per cent of fishers who access the Sea Urchin and Turban Shell fishery indicated that they felt unfairly treated in relation to access to fishing areas, and 71 per cent indicated that they felt unfairly treated in relation to decision making in fisheries management. The sentiment of unfairness has decreased in most aspects since 2019/20.

Satisfaction with access to infrastructure

Fishers who access the Sea Urchin and Turban Shell fishery indicated general satisfaction relating to infrastructure access across all facilities. Access to offloading facilities satisfaction increased the most by 0.6 points with 50 per cent of fishers satisfied, while roads accessing fishing areas and fuel and repair facilities satisfaction fell by 2.4 points with 43 per cent and 50 per cent satisfied respectively.

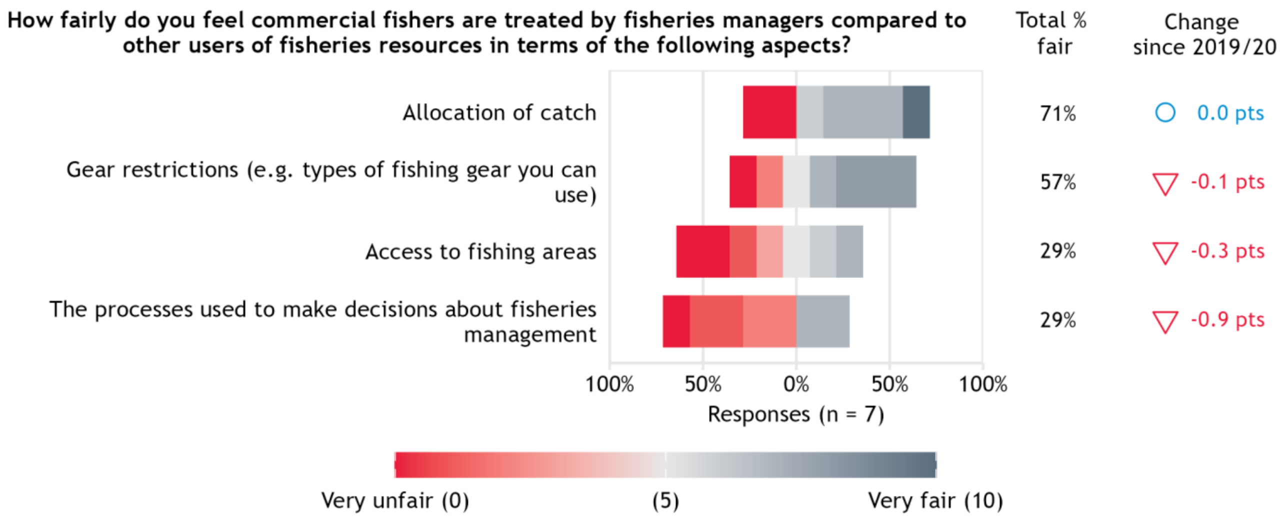
Figure 8-1 Perceptions of fishery management in the Sea Urchin and Turban Shell fishery, 2023/24[a]



[a] The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

Source: 2025 survey

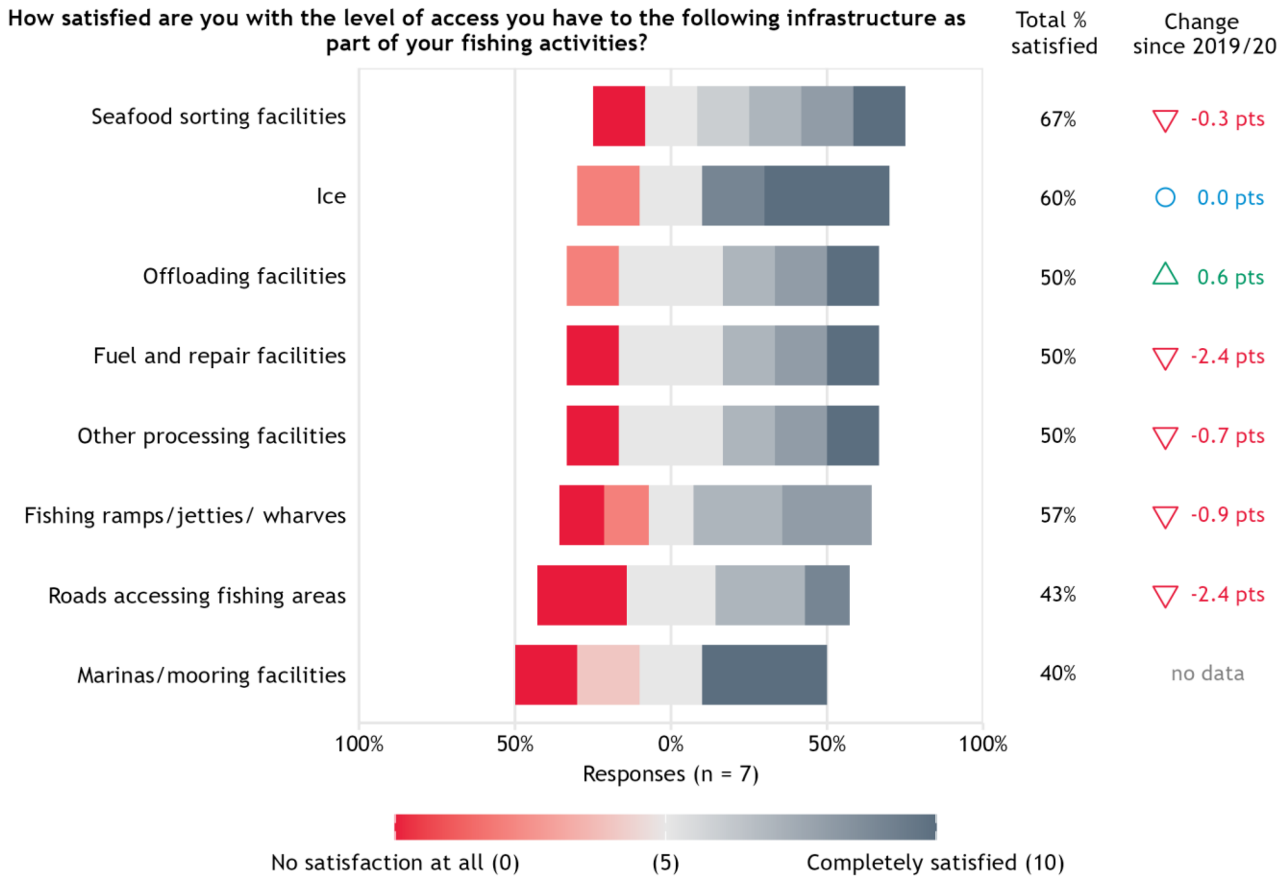
Figure 8-2 Perceptions of management fairness in the Sea Urchin and Turban Shell fishery, 2023/24[a]



[a] The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

Source: 2025 survey

Figure 8-3 Perceptions of infrastructure access in the Sea Urchin and Turban Shell fishery, 2023/24[a]



[a] The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

Source: 2025 survey

8.2. Fishing and lifestyle satisfaction

Figure 8-4 and Figure 8-5 present indicators of continuity, importance and satisfaction with different aspects of fisher's activity in the Sea Urchin and Turban Shell fishery.

Lifestyle satisfaction

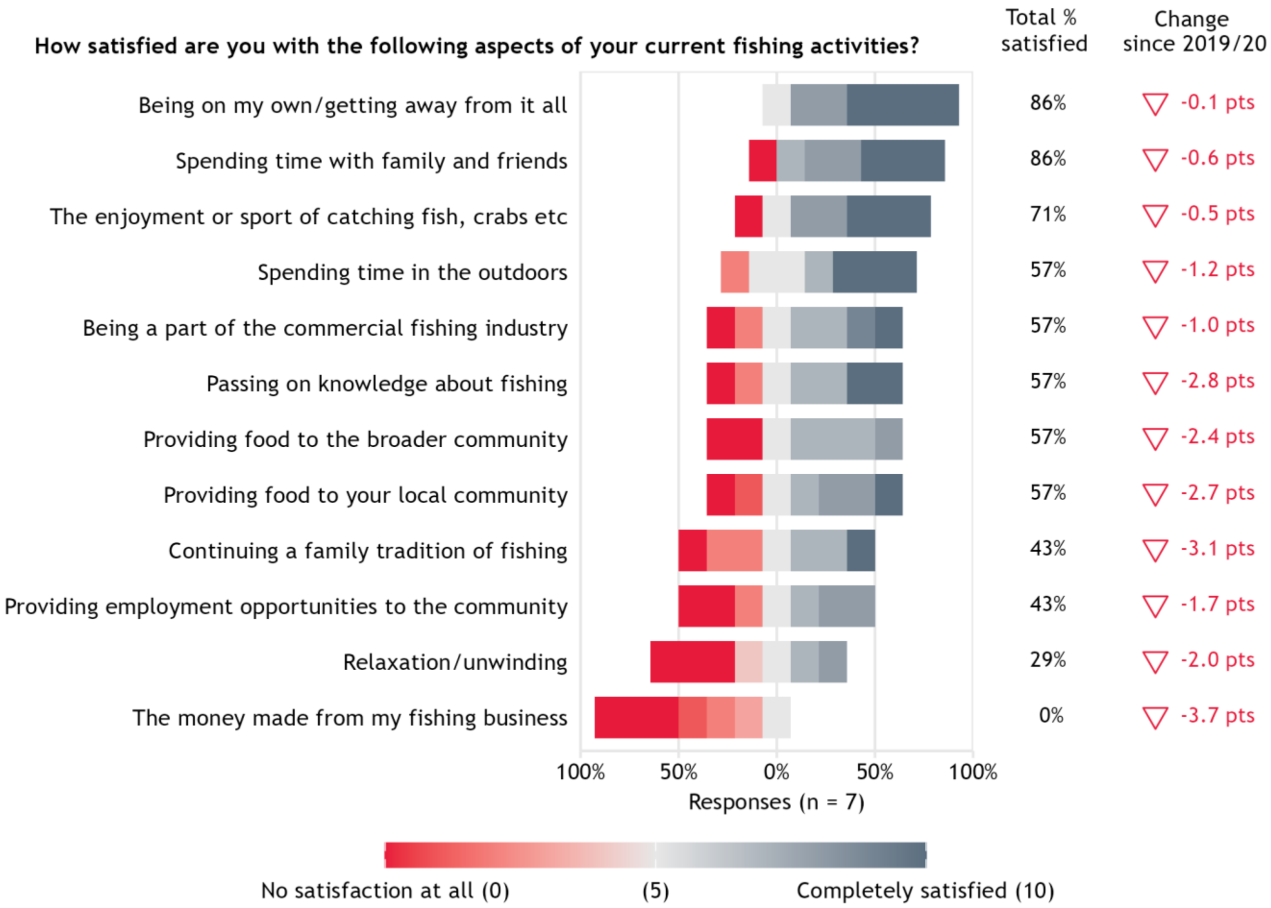
Fishers who access Sea Urchin and Turban Shell fishery were near unanimous in agreement that fishing is a very important aspect of their lives (86 per cent). Around 57 per cent indicated that they intend to continue fishing for as long as possible, despite falling by 3.1 points. However, around two thirds of respondents were dissatisfaction with their commercial fishing activities over the last 12 months, down by 0.3 points.

Fishing satisfaction

A majority of fishers who access the Sea Urchin and Turban Shell fishery were satisfied with most aspects of their current fishing activities, though some indicated that they were dissatisfied with the money made from their business (86 per cent), relaxation and unwinding (57 per cent) and providing employment opportunities to their community (43 per cent). Satisfaction has decreased in all aspects since 2019/20.

Overall, these results indicate that Sea Urchin and Turban Shell fishers are achieving general satisfaction in most cultural, recreational and lifestyle benefits derived from their fishing activities (as per Triantafillos et al.).

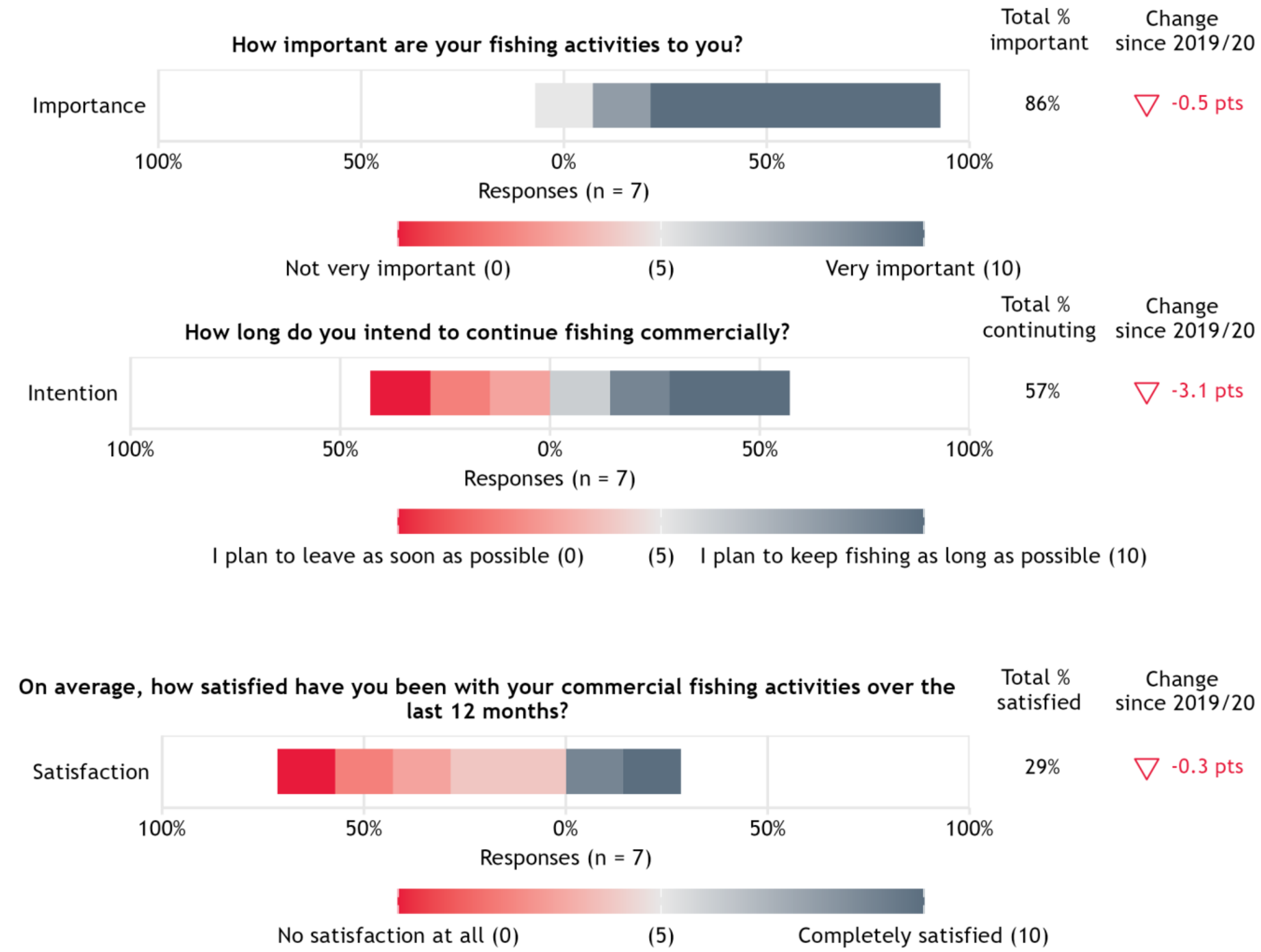
Figure 8-4 Satisfaction with aspects of the Sea Urchin and Turban Shell fishery, 2023/24[a]



[a] The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

Source: 2025 survey

Figure 8-5 Satisfaction in the Sea Urchin and Turban Shell fishery, 2023/24[a]



[a] The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

Source: 2025 survey

8.3. Global life satisfaction and personal wellbeing

Global life satisfaction index

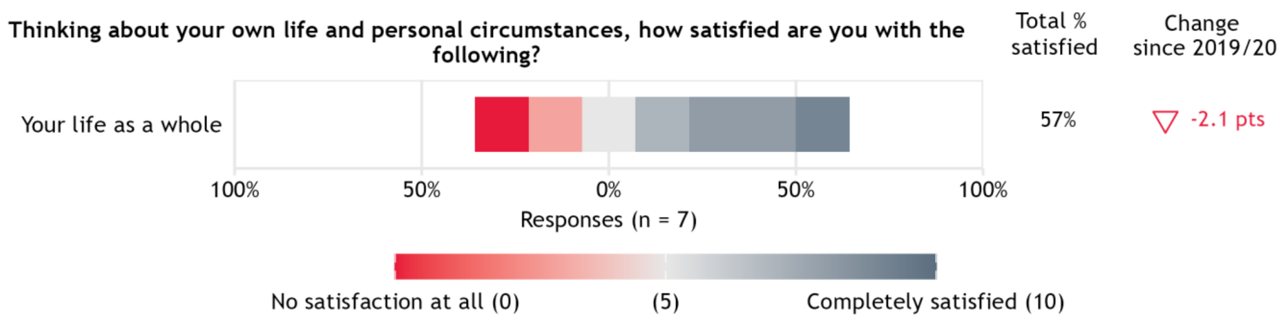
The Global Life Satisfaction (GLS) index is a widely recognised, validated measure of overall life satisfaction, designed to capture an individual's subjective assessment of their life as a whole. The GLS provides a benchmark for comparing life satisfaction between groups, regions, or over time. A higher GLS score indicates greater overall satisfaction with life.

The GLS is typically calculated based on survey responses to a single, global question such as "All things considered, how satisfied are you with your life as a whole these days?". Respondents rate their satisfaction on a scale from 0 (not at all satisfied) to 10 (completely satisfied). The average of these responses, multiplied by 10, forms the GLS index.

This index is particularly useful for summarising the overall quality of life experienced by individuals, beyond specific domains of wellbeing. The GLS index for the Sea Urchin and Turban Shell fishery (Figure 8-6) is compared against the average for Australia, New South Wales and regional New South Wales, as reported in the Regional Wellbeing Survey (UC 2023), below:

- Australia: 71.9
- New South Wales: 71.6
- Regional New South Wales: 71.8
- Sea Urchin and Turban Shell fishery: 57.1.

Figure 8-6 Global life satisfaction in the Sea Urchin and Turban Shell fishery, 2023/24[a]



a The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

Source: 2025 survey

Personal wellbeing index

The Personal Wellbeing Index (PWI) is a validated measure of wellbeing with established benchmarks that are useful for comparing between groups. A higher PWI means higher subjective wellbeing.

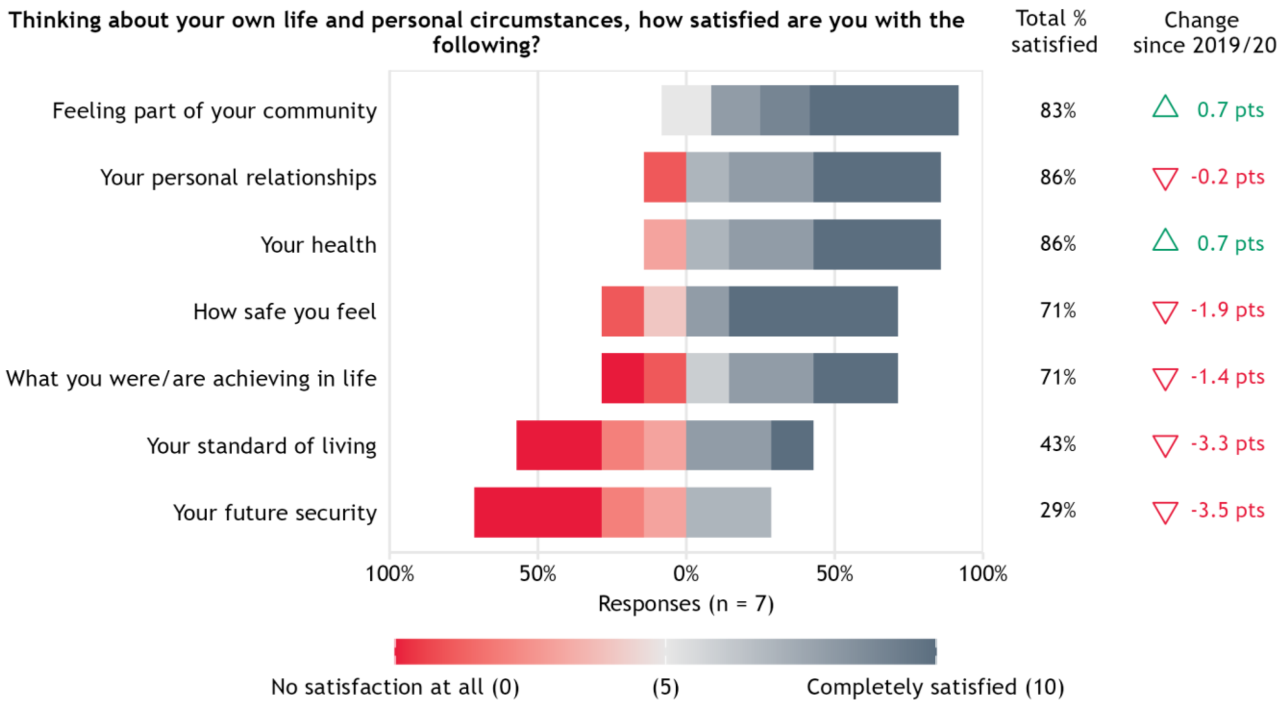
The PWI is based on the answers of respondents to the seven questions shown in Figure 8-7. Each question asks about satisfaction with a specific domain of life. Respondents rate each domain on a scale from 0 (completely dissatisfied) to 10 (completely satisfied). The PWI is then calculated as the average of these seven questions, multiplied by 10.

While the PWI offers a valuable overall measure, the individual questions themselves also provide useful information about the levels of different domains of wellbeing for fishers that access the Sea Urchin and Turban Shell fishery. The PWI for the Sea Urchin and Turban Shell fishery is compared against the average for Australia, New South Wales and regional New South Wales, as reported in the Regional Wellbeing Survey (UC 2023), below:

- Australia: 70.9
- New South Wales: 71.0
- Regional New South Wales: 70.8
- Sea Urchin and Turban Shell fishery: 77.5.

Fishers who access the Sea Urchin and Turban Shell fishery indicated that they had very high levels of personal wellbeing across all PWI domains. However, 71 per cent per cent of fishers who access the Sea Urchin and Turban Shell fishery indicated that they were dissatisfied with their future security. This mirrors the overall pattern across NSW commercial fisheries.

Figure 8-7 Personal wellbeing in the Sea Urchin and Turban Shell fishery, 2023/24[a]



[a] The change between the 2019/20 and 2023/24 surveys is calculated between licence holders who participated in both surveys and is quantified in points out of 10. For example, a change in average from 5 to 6 is stated as a change of 1.0 pts.

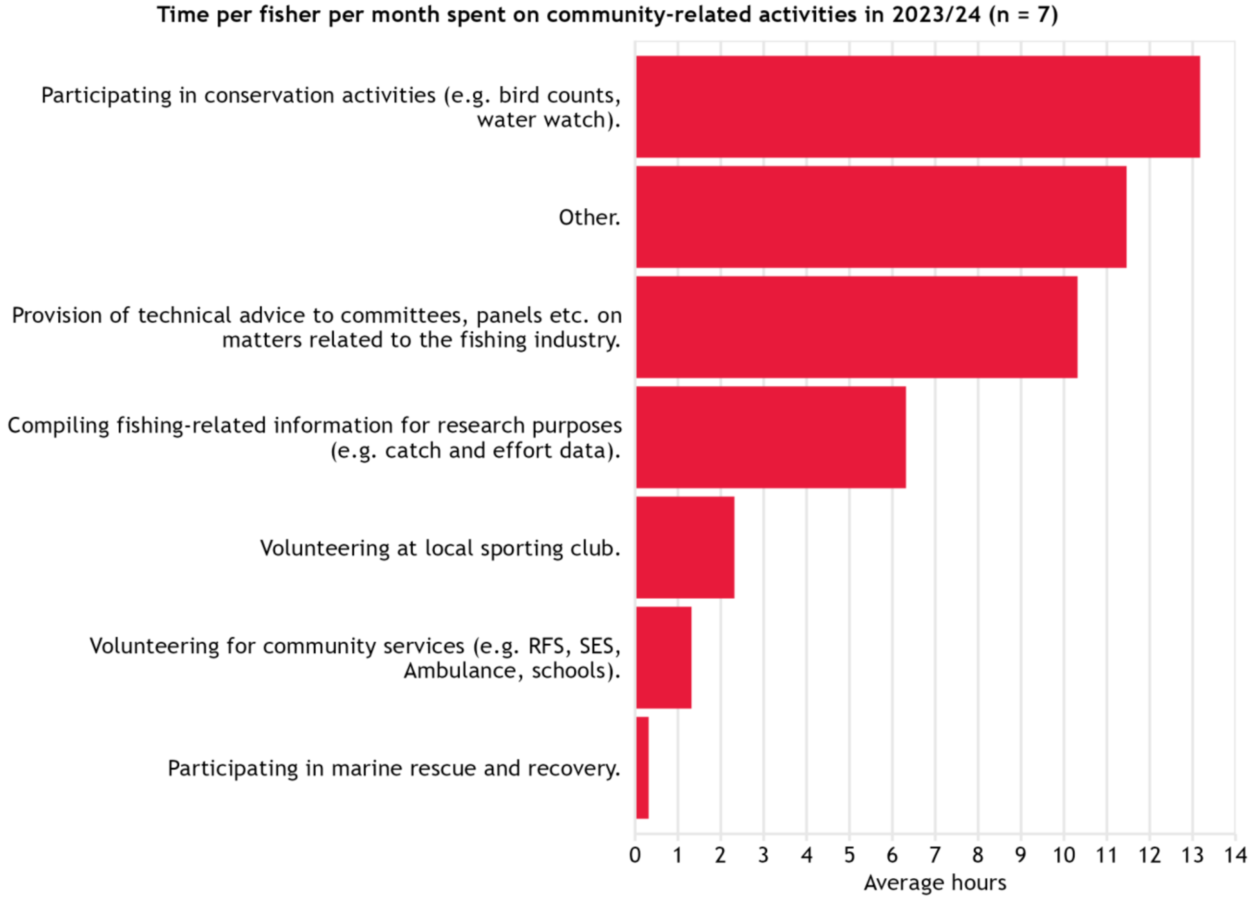
Source: 2025 survey

8.4. Community contribution

Fishers that access the Sea Urchin and Turban Shell fishery spend some of their time contributing to the community through various activities. The average number of hours contributed per month is presented in Figure 8-8.

Fishers who access the Sea Urchin and Turban Shell fishery indicated that they make a significant contribution to the community. This was particularly in the form of time spent contributing to participating in conservation activities, (such as lecturing or assisting marine research), providing technical advice related to the fishing industry, and compiling fishing related information for research.

Figure 8-8 Community contribution in the Sea Urchin and Turban Shell fishery, 2023/24



Source: 2025 survey

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