Te Kāwanatanga o Aotearoa
New Zealand Government

Te whakatipu I ngā tāngata o Tangaroa

Growing ocean people

Report of the Ministerial Inquiry into the use and allocation of migrant labour in the seafood sector

October 2021

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November 2021

Letter of transmittal

29 October 2021

The Hon David Parker, MP
Minister for Oceans and Fisheries
Parliament House
Wellington

Dear Minister

We are pleased to present the report from our Inquiry into the use and allocation of migrant labour in the seafood sector.

We have called our report *Te whakatipu I ngā tāngata o Tangaroa – growing ocean people* – because we have focused on the people of the Aotearoa New Zealand seafood sector, their future, and how migrant labour can contribute to their success.

We have not seen our task as being about working out how to eliminate migrant labour from the seafood sector. Rather, we have taken stock of the use of migrant labour within the context of the seafood sector today and the sector's plans for the future and developed proposals that will assist it in becoming more resilient to shocks like those imposed by COVID-19.

The future of the cross-border movement of people remains clouded with uncertainty. The proposals we make may, therefore, need to wait until decisions about the border are taken. This will allow time for further debate and analysis within the sector on our proposals and how individual firms plan to adjust to what will likely be a different world than existed before COVID-19 started to spread across the globe.

We would like to record that many people have been very generous with their time during our Inquiry, especially after the Level 4 and 3 lockdowns were announced, and have provided us with extremely valuable insights into the sector and the issues it faces.

Our Secretariat from the Ministry for Primary Industries has provided us with exceptional advice and assistance, and we thank them for it. Officials from other government agencies were also very helpful. Professor Basil Sharp of the Economics Department of Auckland University conducted an insightful external review of the draft report.

We have developed an integrated package of measures that we consider will, collectively, best address the labour issues facing the sector. Few, if any, of our recommendations can be considered as being stand-alone proposals and accepting some but not others could make the sector worse off.

Yours sincerely

Peter Wilson
Chair

Julie Fry

Greg Johansson

Report at a glance

The problem we are addressing

The domestic supply of labour to the seafood sector has been falling for some time. Parts of the sector have responded by engaging more migrants. At the same time, for various reasons, some operators have continued to exit vessels with predominantly foreign crew. The investment in additional New Zealand-owned catching capacity has added to the problem of finding sufficient local workers.

While migrants work throughout the sector, the largest numbers are crews of deepsea vessels and seasonal workers, mostly working holidaymakers, in onshore processing. The eleven 100 percent foreign-crewed vessels operating in New Zealand waters receive disproportionate attention, but this mode of operation has been declining in importance for decades (there were over 100 fully-foreign-crewed vessels operating here in 1990).

In relying on migrant labour to fix a supply issue, the sector has exposed itself to greater long-term risk if borders remain closed for longer due to COVID-19 or close again due to another public health emergency. This reliance on migrant labour has also meant that there has been less focus on attracting and training New Zealand workers. The involvement of local workers is important to the sector's prosperity, resilience, and social licence.

General solutions

The first potential solution is to increase the supply of domestic labour. At the most general level, this is about linking people to the ocean, teaching them about the sector and increasing their understanding of how a life in the seafood industry could benefit them. More formal training of locals is one specific approach, as is increasing the attractiveness of seafood sector careers, including through improving terms and conditions of employment and continuing to improve the sector's reputation. Several initiatives are currently underway that are focused on strengthening career pathways, both generally, and for Māori.

Globally, the number of people willing and able to work in food production has been falling for centuries, as increased economic growth has provided access to better employment opportunities, mainly in cities (and in the case of New Zealanders, those cities have often been overseas). Population ageing is also reducing the number of fit, young people as a proportion of the population.

Increasing automation would allow labour to be redeployed to other operations but might not reduce the demand for labour. This might particularly be the case in the onshore processing sector.

Automation of seafood processing, either on the water or onshore, is possible but is usually limited to processing a single or limited number of species, such as machine-opening mussels.

Migration reform as part of the solution

None of these solutions will resolve the mismatch between labour supply and demand in the seafood sector in the next five to ten years.

Our core recommendation, therefore, is that the Government should increase the certainty and predictability of migrant flows into the seafood sector, in exchange for constraining the number of migrants to incentivise firms to adapt the way they operate, so they become more reliant on local workers.

Executive summary

The seafood sector

Wild-caught and farmed seafood is an important source of protein globally. Biological and environmental constraints mean that volume growth in catching wild fish is likely to be limited, while seafood farming is more likely to grow. This is true both globally and in Aotearoa New Zealand.

The New Zealand seafood sector, including wild-capture fisheries (both deepsea and inshore), aquaculture operations, and onshore processing, is small, directly contributing about 0.39 percent of total GDP[1] and is geographically spread throughout New Zealand.

Officials' best estimate is that on average the sector employs around 12,400 people, of whom about 2,460 are migrants. Data provided by the sector suggests these figures might be a lower bound.

The sector has a poor but improving reputation. Whether that reputation is deserved is open to debate.

Many people who work in the seafood sector view it as more of a lifestyle than a career and are passionate about the industry and the opportunities it provides.

The Treaty of Waitangi

Māori fished the waters of Aotearoa for centuries before the arrival of Pākehā. In the Treaty of Waitangi, the Crown guaranteed to iwi the "full exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties which they may collectively or individually possess so long as it is their wish and desire to retain the same in their possession". The Crown, however, failed to meet its Treaty obligations, with the Waitangi Tribunal in 1988 finding that "it is all too clear that over the years numerous blatant and serious breaches have occurred of the Treaty guarantee".[2]

After many years of protest, litigation and negotiation, Māori and the Crown agreed in 1989 to an initial settlement of grievances relating to commercial fishing that provided for the allocation of catch rights under the newly introduced Quota Management System (QMS). A final settlement was agreed in 1992, which provided for:

- $150 million to allow Māori to purchase up to a half share of Sealord Products Limited;
- the allocation to iwi of 20 percent of any quota for fish stocks brought into the QMS after the settlement date; and
- the establishment of the Treaty of Waitangi Fisheries Commission to initially hold assets on behalf of iwi and allocate those assets for the benefit of all Māori.

The allocation of quota and income shares generated by the Settlement is now administered by Te Ohu Kaimoana, the successor organisation to the Treaty of Waitangi Fisheries Commission.

A separate settlement allocated marine space that could be used for aquaculture, or equivalent value, to iwi.

Māori aspire to develop further their involvement in the sector, including through increasing employment in sea-going and onshore roles.

The principles of the Treaty require the Crown to consult iwi in good faith and to actively protect iwi rights and interests where they might be affected by the Crown's actions. This will apply to our recommendations.

Business context

Businesses operating in the seafood sector are generally price takers. While they do have the capacity to earn a higher price from delivering a premium product, their ability to pass on increased costs is limited. The prices they receive are also variable. Large investments into securing annual catching rights, combined with seasonal availability of catch and ensuring product can be processed and delivered to markets at the right time, underscore the importance of a reliable supply of labour. Many of these are challenges common to most primary industries.

Sub-sectors within the seafood sector operate very different business models and face different cost structures. Individual firms make decisions on the mix of labour and capital they use in their operations with the overall aim of making a profit.

The way operators currently use migrant labour varies greatly:

- There are a small number of 100 percent foreign-crewed deepsea vessels.
- Some fishers and companies (both deepsea and inshore) 'top up' primarily New Zealand-crewed vessels with migrants.

1 For year ended March 2019 (latest available). Stats NZ Infoshare Table SNE048AA.
2 Waitangi Tribunal (1988).

- At sea aquaculture operators do not appear to use significant numbers of migrants, although as farming techniques advance, technical expertise from overseas may be required, especially during installation and start up as New Zealanders gain the necessary expertise.
- Many onshore processers in the sector have relied heavily on working holidaymakers and students for seasonal operations.
- Deepsea vessel operators and some aquaculture operations also require regular short-term access to specialist skills not currently available in New Zealand.

We have heard through multiple channels that the Government does not promote the sector as a good place to work and that the lack of a clear Government position regarding the performance of the sector and its future in New Zealand is a barrier to recruitment.

Labour market context

A ready supply of labour will allow firms to operate with a more labour-intensive model. As labour becomes less available and/or more expensive, the benefits of automation increase.

Even in capital intensive parts of the sector, labour is essential for operations. Like the rest of the economy, the seafood sector is currently facing labour shortages.

This will inevitably put pressure on firms with fewer options to either increase wages to attract staff or introduce technological advances. From a national perspective, competition for scarce labour is not necessarily a bad thing, but it can lead to extreme financial stress for firms that are close to break-even.

The New Zealand economy as a whole has been generally resilient to the shock of COVID-19. Unprecedented levels of fiscal and monetary stimulus have supported firms and consumers. But businesses particularly reliant on open borders have faced severe challenges. Export tourism has, to an extent, been able to pivot to serving domestic tourists who are holidaying here rather than overseas. Export education has essentially stopped.

The seafood sector was classed as an essential service and could continue to operate even during Level 3 and 4 lockdowns. Some migrants, including those employed on 100 percent foreign-crewed vessels, were in New Zealand when the border closed and worked in the sector for longer than they otherwise would have, although many have now returned to their home country. Two class border exceptions have been granted which allow up to 1,185 migrants into New Zealand to crew some deepsea vessels.

Employers who are reliant on temporary and seasonal labour have faced severe constraints. Some have successfully retained and attracted workers by improving terms and conditions. Others have had to suspend parts of their operations. Some vessels have been tied up due to a lack of crew, and some processing operations have been scaled back.

Reducing the sector's reliance on migrant labour

There are two broad options for reducing the sector's reliance on migrant labour. We have seen evidence that some firms were on this path, even before COVID-19.

The first is to increase the supply of locals willing and able to be employed in the sector.

Increasing the size of the local workforce will require a combination of actions, some pre-employment and some to increase retention rates. The core issue is whether Aotearoa New Zealand can grow more ocean people over time.

Better training was a common theme raised in our engagement, as was addressing wider social issues like affordable housing, mental health challenges and drug and alcohol abuse. Pastoral care, especially for new entrants on board vessels away from port for extended periods is also important.

Automation is the other option. Individual firms will develop their own business cases for the situations they face. Firms operating older vessels catching species sold with limited processing into low-income markets will have few options. Even more modern vessels face constraints, as they tend to target multiple species that have to be processed by hand, or exported partially processed or whole. Aquaculture processors, especially those with single-species operations, may have more options. Automation may increase throughput with labour being moved to other parts of operations, rather than decreasing labour demand overall.

Large-scale open ocean finfish farming facilities currently being deployed overseas are highly automated, remotely managed and require a small water-based crew that can move from farm to farm as

required. Processing will still likely happen onshore. Single species and uniformity of size allow more automated processing. If these sorts of operations are introduced into New Zealand, then output from the sector may be able to be increased significantly without using large amounts of additional labour, either local or migrant.

Some existing operations may not be viable in a world with limited access to labour and capital and may close. While clearly devastating for the people concerned, from a national perspective, this is desirable: scarce commercial resources should not be operating where profits cannot be made. The ecological and political impacts of significant reductions in harvesting capacity are outside our remit.

Our overall conclusion is that the mismatch between the supply and demand for labour that is currently bridged by the use of migrant labour will continue for some time to come.

Increasing local labour supply is the aspiration of the sector, but whether there are cost-effective means of doing so is an open question and even if there are, it will take time for those desires to be realised.

Reducing labour demand without simply stopping harvesting or processing catch is also a long-term process. It relies on automation techniques, some of which are not yet available globally, let alone in New Zealand. Each automation proposition will need to pass a business case before it can be widely applied. Access to capital may be an additional constraint for some firms.

The employment of migrant labour in the seafood sector is, in our view, inevitable for at least the next five to ten years. The key question is the size of the migrant workforce.

Two main reforms

Given the near certainty of some migrants being employed in the seafood sector, even if the automation process plays out where it can, we recommend that the Government move to increase the certainty and predictability of migrant flows into the sector, and to address concerns it may have in the sector generally, in exchange for constraining the number of migrants available. This should encourage firms to develop alternative business models that rely more on local workers.

We recommend that to increase the supply of domestic labour, the Government:

- examine establishing a more formal seafood training system that would allow locals to enter the sector with the same degree of skills as migrants (this might involve an apprenticeship-type arrangement);
- settle on a whole-of-government view of the future of the sector and promote that view broadly.

We propose two major but closely related migration reforms.

First, we recommend that a new Seafood Sector visa be introduced. This visa would:

- continue to allow foreign crew to come to New Zealand to work on fishing vessels; and
- allow migrants to be recruited to work onshore in processing roles and the aquaculture sector.

One condition of the new visa would be that all migrants would need to be employed on the same or better conditions as locals engaged in comparable roles.

High-level details of the visa and its provisions are in Table 1 over the page.

Secondly, we recommend capping the number of migrants allowed to work in the sector as a whole. This would allow the government greater control over the level of migrant labour used in the sector. A system of transferable permits would provide an incentive for migrants to be employed in the highest value roles, thereby lifting productivity and reducing reliance on migrant workers in the seafood sector.

A number of examples indicating how our proposals would work are contained in Appendix G at the end of this report.

The sector will undoubtedly develop and change through time, meaning that settings will need to be kept under review and adjusted as necessary, particularly if the sector continues to grow.

Table 1: The Seafood Sector visa

Feature	Proposal	Comment
Coverage.	All of the seafood sector.	The visa would apply to both onshore and at sea roles. Specialist employees, like mechanics who come to New Zealand annually to service deepsea fishing vessels and who might need to come to New Zealand to install new equipment in e.g. open ocean aquaculture would be outside the regime.
Duration.	Up to three years.	The high-income band of the Essential Skills visa allows for visas to be issued for up to three years. We propose using this as a template.
Ties to employers.	A migrant could work for any employer that holds a permit.	Unlike the Fishing Crew Work visa, employment will not be tied to a specific employer. This will introduce competition for migrant labour within the sector, which will improve efficiency.
Remuneration.	Not less than the market rate for New Zealand workers in the relevant occupation.	As per the Essential Skills visa.
Accommodation and pastoral care.	Employers would be required to provide accommodation for sponsored onshore roles and ensure that workers are supported while in New Zealand. Arrangements will apply to reduce the risk of migrants being stranded in New Zealand if their employment Is terminated.	The Recognised Seasonal Employer (RSE) scheme is the guide.

Conclusion

Given the limited available pool of labour in New Zealand and reducing number of locals willing and able to go to sea, some level of migrant labour will inevitably be required across the entire sector, for example, to support a growing aquaculture sector or to fill seagoing roles and accommodate seasonal processing peaks. We are also aware of a number of initiatives to increase Māori engagement and employment in the sector.

A system of transferable permits for employers that sits alongside a new Seafood Sector visa has the potential to lift productivity in the sector.

In developing proposals for reform, the Government should proceed on the basis that we are heading into a world of increasing competition for migrants. The Government should take a long-term view in terms of enhancing our reputation as a country that welcomes migrants.

The seafood sector in Aotearoa New Zealand faces many challenges, some uniquely local and some in common with the rest of the world. But it does have a future as a viable, prosperous industry. Our recommendations are intended to help secure that future.

Kia pai te haere, e ngā tāngata o Tangaroa.

Contents

1 Introduction

Our inquiry is into the use and allocation of migrant labour in the seafood sector in Aotearoa New Zealand.

Answering our terms of reference has required us to examine the operations of the sector and the policy and legislative context within which it currently operates.

We have, however, taken careful note of the Government's ambitious reform agenda for oceans, wild fishing and aquaculture, and the plans and aspirations of the seafood sector and the firms that operate within it. We have particularly sought to understand the future Māori envisage for their participation in the seafood sector.

We have not been tasked with identifying what priority should be afforded the potential reform of the use of migrant labour within this agenda. This is a role for government, using whatever consultative and analytical processes it sees as most appropriate.

1.1 Why the seafood sector and why now?

COVID-19, and the border closures and other restrictions that it has occasioned provide a compelling reason for prioritising the issue of migrant labour.

The New Zealand border is essentially shut, with only a small number of non-citizens allowed to enter. Those who do have a right to enter also face a limited – and often diminishing – number of places in managed isolation and quarantine (MIQ) facilities.

COVID-19 remains a pandemic and it is far from being controlled globally, despite the roll-out of vaccines. The emergence of new variants is a telling reminder of how tricky the virus is. It is highly unlikely that the border will return to pre-COVID-19 levels of openness soon.

When announcing that additional border exceptions and MIQ places would be provided to the seafood sector in 2020, the Minister for Immigration said:

> In exchange for the border exception, the fishing industry has committed to removing barriers to employing New Zealanders, including reviewing pay structures and business models, and investing significantly in training and education.[3]

There has been limited progress to date.

Two of our members have elsewhere called for the Government to reset migration policy when the border reopens.[4] In the speech delivered by the Hon Stuart Nash, the Minister for Economic and Regional Development on behalf of the Minister for Immigration the Hon Kris Faafoi, on 17 May 2021, the Government announced, in broad terms, that migration policy would not return to the pre-COVID-19 status quo when the border re-opens after COVID-19 restrictions are reduced.

The Government has the ambition to transition the seafood sector to a principally New Zealand workforce, where New Zealanders are employed in rewarding jobs, rather than exporting the labour value component of returns.

In undertaking this Inquiry, we have sought to provide material that will assist the sector in meeting the commitment it gave and ensure that the unique features of the sector are considered when the border reopens.

1.2 Treaty of Waitangi

Māori fished the waters of Aotearoa for centuries before the arrival of Pākehā.

In the Treaty of Waitangi, the Crown guaranteed to Māori the "full, exclusive and undisturbed possession of their Lands and Estates Forests Fisheries and other properties for so long as they might wish and desire to retain the same in their possession". In its 1988 Report on the Muriwhenua Fishing Claim, the Waitangi Tribunal found that the Crown had failed to meet its Treaty obligations – "it is all too clear that over the years numerous blatant and serious breaches have occurred of the Treaty guarantee".[5]

As a result of these and other findings by the Tribunal and various court cases,[6] the Crown entered into negotiations with Māori to resolve Treaty claims over commercial fisheries. The results were an interim settlement in 1989 and a final settlement in 1992. The settlements are complex, and the issues nuanced. For our purposes, the key points are:

- Māori received $150 million to finance the purchase of up to a half share of Sealord Products Limited.
- Māori were guaranteed 20 percent of any quota for fish stocks brought into the Quota Management

3 Faafoi (2020).
4 Wilson and Fry (2020).
5 Waitangi Tribunal (1988), p. 239.
6 Including Ngāi Tahu Māori Trust Board v Attorney-General [1987] NZHC 321 (2 November 1987).

System (QMS) after the Settlement date.
- The Treaty of Waitangi Fisheries Commission was established to hold assets on behalf of iwi and allocate those assets for the benefit of all Māori.

The Commercial Aquaculture Claims Settlement, agreed in 2004, provided for the settlement of Māori claims to commercial aquaculture through a cash settlement for space consented between 1992 and 2011.

The aquaculture settlement is also prospective and requires the Crown provide iwi with 20 percent of new consented aquaculture space, or its equivalent value, going forward from 2011.

We heard from a number of organisations about their plans to increase Māori employment in the seafood sector. In their joint submission, the Iwi Collective Partnership and Ngā Tapuwae o Maui said:

> Our fear is the Ngā Tapuwae o Maui waka will be swamped by the cumulative effect of significant change before our mana motuhake initiatives have time to develop and take effect. The impetus for change sits within a historical context that iwi have only recently returned to the fishing industry and are in the process of rebuilding our collective fisheries mātauranga knowledge that was lost through expropriation and disconnection. We don't have the capacity to achieve all necessary change at the same time, but our intention is to advance. We call this 'mana motuhake'.
> Therefore, Iwi Collective Partnership and Ngā Tapuwae o Maui jointly support the Inquiry's investigation into what a more resilient Māori New Zealand deepsea workforce could look like. However, the [transition] should be mindful of our intent as iwi and not destroy our own mana motuhake in the process. In this respect, we urge the Minister and Government to work with us, not over us or against us.

We have heeded this advice in our work.

Te Ohu Kaimoana and Moana NZ, and its holdings in Sealord, are important settlement redress assets. Both Moana NZ and Sealord currently employ migrant labour. While iwi are seeking to New Zealandise their operations, this will take some time.

Similarly, iwi inshore quota is fished by a range of operations, with Moana NZ, Ngai Tahu Seafoods and Takitimu Seafoods being significant players.

Actions by the Crown that reduce the value of these assets without full consultation and visible, active protection of their value could be seen as a breach of the principles of the Treaty. We therefore expressly recommend that the Crown consult fully and in good faith with its Treaty partner as it considers our recommendations.

1.3 Process

We have met as a Panel on 16 occasions since our Inquiry commenced work on 5 July.

1.3.1 A survey and information collection

Assisted by our Secretariat from the Ministry for Primary Industries, we surveyed stakeholders and sought detailed information from the sector about their employment of migrant labour and other relevant matters.

We received:
- 117 responses to the survey itself;[7]
- 15 written submissions; and
- 10 comprehensive spreadsheets containing details of employment by larger companies.

1.3.2 Briefings

We have been briefed by officials from:
- Ministry for Primary Industries (MPI);
- Ministry of Business, Innovation and Employment (MBIE);
- Ministry of Foreign Affairs and Trade (MFAT);
- Maritime New Zealand; and
- Te Puni Kōkiri.

1.3.3 Material reviewed

We have reviewed a number of official government publications, including:
- The Report of the Ministerial Inquiry into the use and operation of Foreign Charter Vessels 2011;
- The Government's Aquaculture Strategy and associated 2021 Implementation Plan;
- The Oceans and Fisheries briefing for the new administration, November 2020;
- The Fisheries Portfolio Briefing, 2020;
- The Future of Commercial Fishing in Aotearoa New Zealand, prepared by the Office of the Prime Minister's Chief Science Adviser, February 2021;
- The Fisheries Workforce Transitional Plan – Progress Report March 2021; and
- The Fisheries New Zealand Briefing on Fisheries to the Primary Production Committee – June 2021.

7 Ten responses were determined to be unlikely to represent genuine engagement and were not included in the analysis.

1.3.4 Engagement

We held 36 face-to-face and virtual meetings with a wide range of individual fishers, seafood businesses, Māori representatives, industry groups and unions. We travelled to Auckland, Christchurch, and Wellington for these meetings.

Our engagement phase coincided with the annual Seafood New Zealand conference, which we had hoped to attend, as it would have allowed us an invaluable opportunity to meet with a wide range of people involved in the sector. Unfortunately, the event was cancelled due to the Level 4 lockdown, but we were able to hold virtual meetings instead.

We were particularly keen to engage with representatives of iwi and Māori interests in the seafood sector. We recognise the interests Māori have in the sector, as Treaty Partners, as well as owners of significant quota, and as fishers and farmers in their own right, and the important role income from owning quota and employment in the seafood sector will have in addressing persistent social issues. Given the time constraint we were under, we did not arrange hui to discuss the issue, instead, we engaged with a range of organisations one-on-one and received valuable written submissions.

We would like to thank the many people who have been very generous with their time, especially after the Level 4 lockdown was announced, and who provided us with extremely valuable insights into the sector and the issues it faces.

A list of those who we met and who made separate written submissions is in Appendix C.

1.3.5 Engagement on the draft report

We provided our draft report for comment to the people we had engaged with in preparing the report.

We held separate virtual meetings with Māori and sector parties to answer questions and receive feedback on our recommendations.

We received 15 written submissions on the draft report.

A list of those who made written submissions on the draft report is also in Appendix C.

1.4 Key themes and issues raised by submitters

The key themes and issues raised by submitters were common across all our engagements:

- The seafood sector's workforce is principally comprised of New Zealanders, and the number of migrants in the industry has already been significantly reduced by the substantial reduction in foreign-owned or operated vessels over time.
- There will be an ongoing need for migrant workers in the sector. There was widespread acknowledgement that migrant workers bring benefits – they have skills and knowledge that contribute to the industry and are willing to do jobs that are unappealing to New Zealanders.
- Labour and skill shortages are impacting operations across the country. This is an economy-wide issue, and some seafood sector employers are competing with other industries for workers.
- Some companies are actively changing their operations to increase the number of New Zealanders employed; for example, Sealord is transitioning away from 100 percent foreign-crewed vessels.
- More needs to be done to improve perceptions of the seafood sector and awareness of the rewarding jobs available in the industry, including through offering and promoting opportunities for career development and training.
- There is a need to promote the industry positively, including through supportive messaging from the Government regarding the industry being valued, responsible and highly regulated.

1.5 A limited inquiry

We were asked to undertake our Inquiry over a short period of time, which limited the amount of information gathering, engagement and analysis we could undertake.

While the seafood sector is complex, we are confident that the sector knowledge of our panel and Secretariat, our experience in public policy and the engagement we have undertaken has given us sufficient information with which to undertake our work.

Stakeholder engagement on our draft report has confirmed that our sector analysis has proceeded based on an appropriate understanding of the industry.

2 Business context

Businesses operating in the seafood sector are generally price takers. Producers of premium products can earn good returns, but the sector's ability to pass on increased costs to customers is limited. The prices they receive are also variable.

Sub-sectors within the seafood sector operate very different business models and face different cost structures.

Individual firms make decisions, often from limited choices, on the mix of labour and capital they use in their operations. They all have a deep understanding of their operations and the best way to reach their overall aims.

New Zealand is currently facing extensive labour shortages.[8] Firms in the seafood sector with limited options to either pass increased wage costs on to their customers or to switch to more capital-intensive modes of operation are facing extreme financial pressures. From an economy-wide perspective, labour should be employed in its most productive use and competition for available workers is an efficient and potentially productivity-improving process. Firms that are close to break-even may not, however, survive.

The New Zealand economy has recovered from the economic shock of the 2020 COVID-19 lockdowns relatively quickly, in part due to the very large stimulus packages put in place by the Government and the Reserve Bank.[9] Underneath the national average is a more uneven picture. Firms with business models based on an open border for either customers or staff have been badly affected. Some, like tourism, have been able to pivot to serving the domestic market quickly. Others, like export education, have all but ceased to trade.

As an essential service under COVID-19 lockdown rules, the sector could continue to catch and process seafood.

8 NZIER has reported that difficulty in finding skilled or unskilled labour is the highest on record in its Quarterly Survey of Business Opinion. New Zealand Institute of Economic Research (2021).

9 At time of writing, Auckland is still under Level 3 lockdown due to an outbreak and the rest of the country is at Alert Level 2 Delta. The economic consequences of this latest lockdown have yet to be seen in official statistics.

3 Migration context

The seafood sector is not alone in its use of migrant labour.[10]

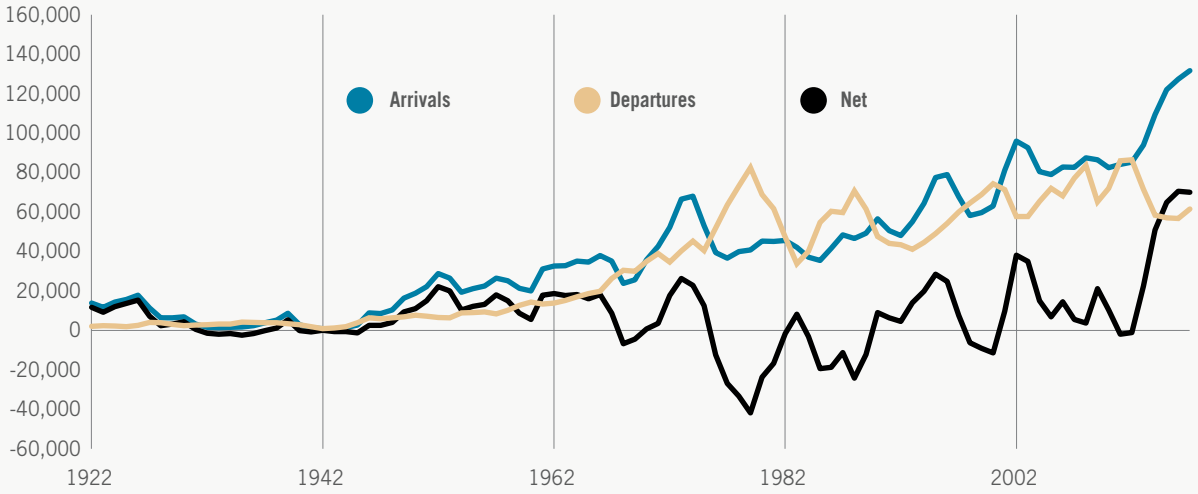
3.1 Temporary migration in New Zealand

While overall net migration to New Zealand has not always been positive, there has been a general upward trend in permanent and long-term immigration of non-New Zealand citizens since 1979 and a marked increase since 2013.[11]

Behind the macro trend of an increase in net migration, we have also seen a change in the composition of migrants. The principal driver of overall net migration into New Zealand since 1979 has been the level of trans-Tasman migration.[12] Since 2010 however, there has been a significant increase in the overall number of entry visas issued with work rights attached.[13]

Figure 2 shows the categories of visas granted to workers migrating to New Zealand.[14]

Figure 1: Migration this century has been historically high



Source: Stats NZ

10 For histories of migration in New Zealand, see Spoonley and Bedford (2012) and Fry and Wilson (2018).

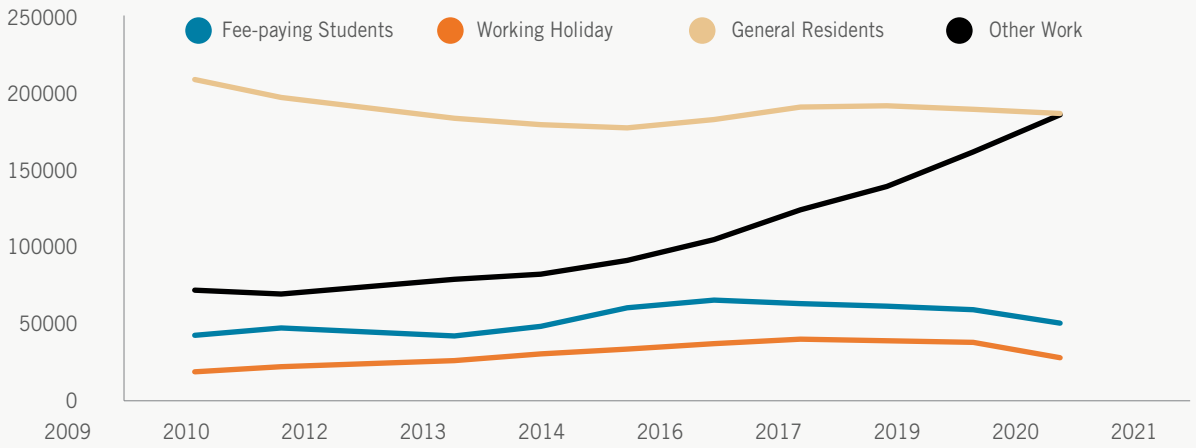
11 Stats NZ classifies someone as a 'permanent and long-term migrant' if they stay in New Zealand for over twelve months in the sixteen months after arrival, regardless of their visa status. Until 2017, Stats NZ classified visitors based on the intentions they stated on their arrival card. Any person indicating that they intended to stay in New Zealand for more than twelve months was classified as a 'permanent and long-term' migrant, regardless of whether they stayed in New Zealand or not. Stats NZ found that the old measure underestimated permanent migration by up to 20,000 people a year between 2001 to 2008 and underestimated it by about 3,000 people a year in the period after 2010. (Statistics New Zealand (2017)).

12 Fry and Wilson (2018), p. 49. One reason net migration has been so high in recent years is that the number of New Zealanders moving to Australia has fallen significantly. Since the COVID-19 restrictions on cross-border travel, we have seen a marked continuation of this trend, with net migration of New Zealand citizens being strongly positive (Statistics New Zealand (2021)).

13 There are different types of migrants, who can be classified by length of stay (e.g. visitors, temporary workers and permanent residents) and on motivations (seeking refuge, family reunion or seeking a new location to ply their trade or profession or to study). This report is concerned with what is commonly referred to as 'economic migration': people seeking to change countries principally to improve their economic situation.

14 General Residents are people with a right to enter New Zealand with a general right to work not attached to a specific occupation or position. This category includes refugees, the Pacific category, investors and entrepreneurs. The 'Other Work' category includes people with work rights that are either attached to a specific sponsoring employer (as is the case with the Essential Skills visa), migrant students who have graduated and are looking for work, horticultural seasonal workers and Foreign Crew work visa holders.

Figure 2: The changing composition of migration – migrants in New Zealand, year to April[15]



Source: MBIE

Before border restrictions were introduced in March 2020, temporary migrants were so readily available that many New Zealand employers looked to migration first to solve skill and labour shortages.

3.2 The economics of migration

Migration is a much-studied area of economics. Thousands of pieces of analysis have been produced on the topic.[16]

There are some common themes in much of the migration literature:

- Migration is often very beneficial to the migrants themselves, as it allows them to live and work in a new country where they have greater prospects of success.[17]
- The benefits of permanent migration to the host country, when measured in terms of gross domestic product (GDP) per capita, are small and are mostly captured by migrants in the form of higher wages and by employers in terms of higher profits.[18]
- There are, however, cases where the benefits of migration are shared more widely across the economy, a phenomenon known as 'spillovers', which can occur if the migrants are complementary to existing workers and capital.[19]
- Temporary migrants are diverse and have different characteristics and motivations and behave differently to permanent migrants (for example, they may focus on saving money to send home, or on earning enough to fund holiday travel).[20]

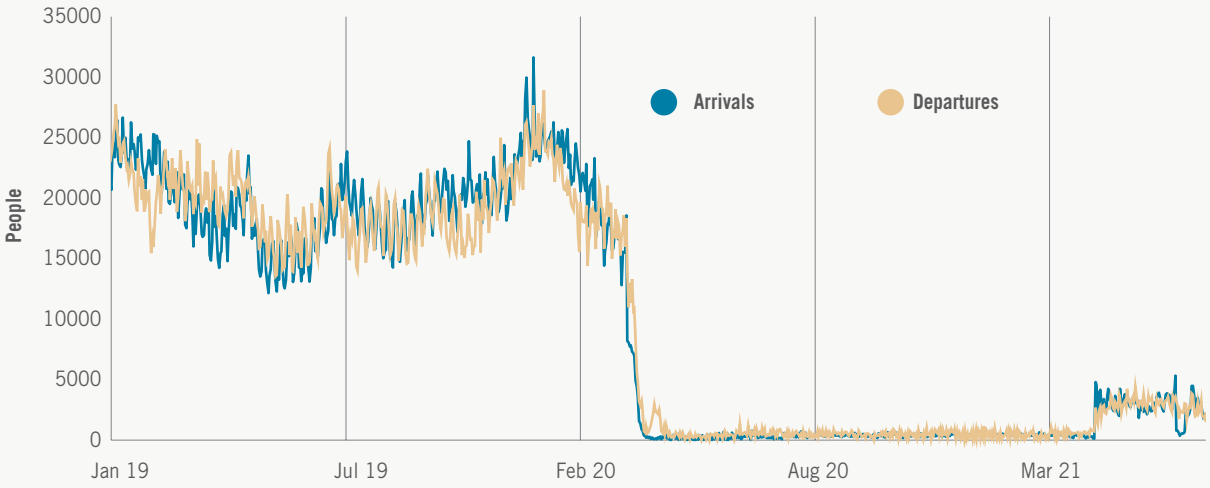
15 Excludes Australians who are granted a special visa on entry giving them all the rights of permanent residents.
16 For a recent review of the literature, especially as it applies to seasonal and temporary migration in New Zealand see Fry and Wilson (2021).
17 Fry and Wilson (2018).
18 Nickell (2009).
19 Fry and Wilson (2021).
20 Adda et al. (2021).

3.3 COVID-19 has changed everything

Figure 3 shows the dramatic effect of the border closure on movements into and out of the country. It records daily border crossings by air for all types of entry. The uptick in movements from April to August 2021 shows the opening and then closing of the trans-Tasman travel bubble.

Ministers have on separate occasions granted approval for two class border exceptions that have allowed groups of deepsea fishing crew to enter New Zealand, notwithstanding the border closure. The exceptions cover up to a total of 1,185 people. Other crew have entered New Zealand after being assessed as being critical workers.

Figure 3: The borders are closed – Daily cross-border air movements, all citizenships



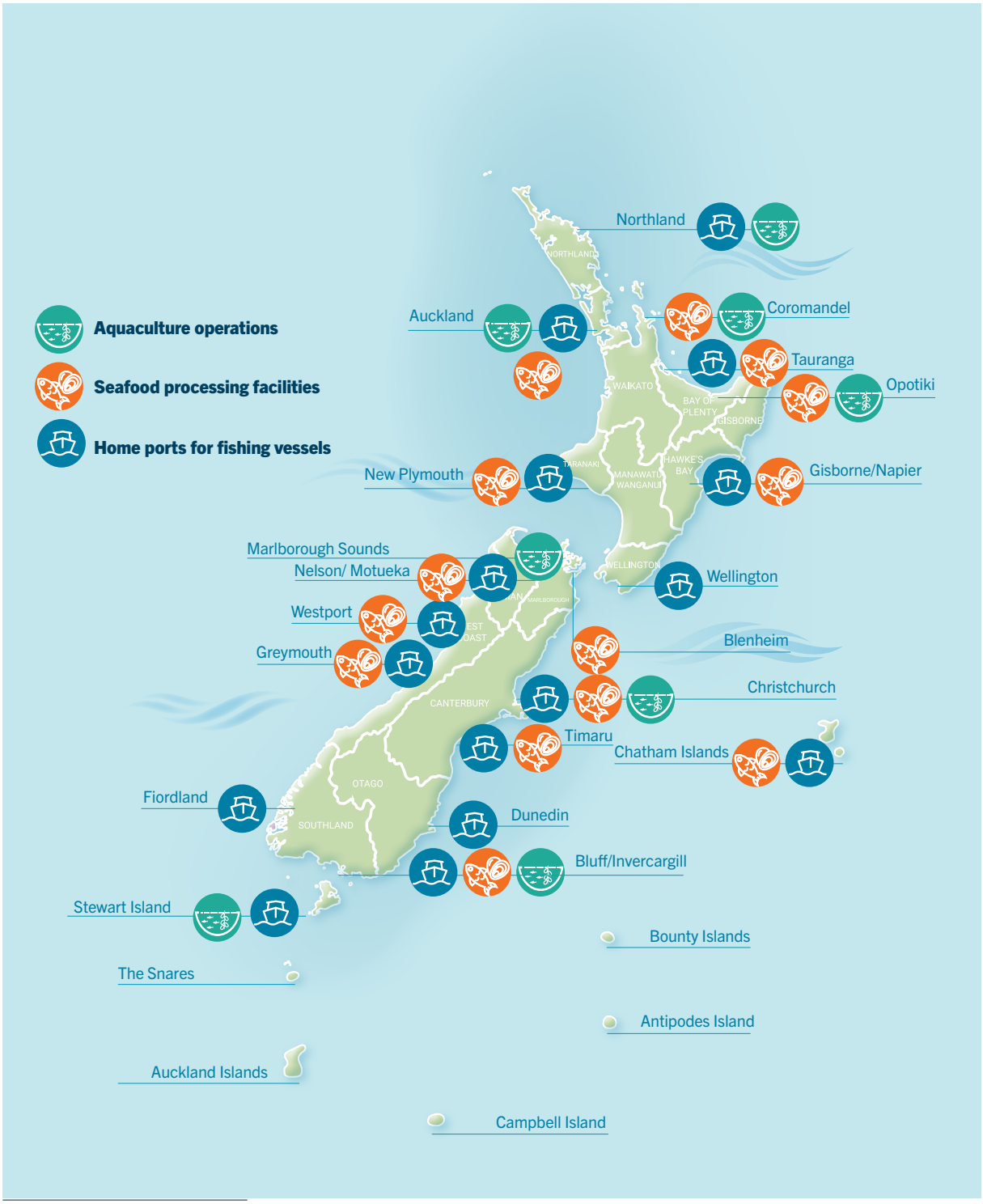
Source: Stats NZ

4 The seafood sector

Seafood, both wild capture and farmed, is an important food source.

The New Zealand seafood sector makes a modest direct contribution to the total economy: about 0.39 percent of total GDP.[21] Onshore processing and vessel support are distributed across both main islands, Stewart Island and the Chatham Islands.

Figure 4: The New Zealand seafood sector



21 For year end March 2019 (latest available). Stats NZ Infoshare Table SNE048AA.

4.1 Global trends

The seafood sector in New Zealand is subject to global trends that affect its structure and performance. Concerning the subject matter of our Inquiry, the more important of these are:

- Global demand for protein is increasing, while the supply of wild-caught fish is largely constrained by biological factors. There are opportunities for New Zealand to increase the per-unit value of wild-caught fish and to expand both value and volumes of farmed species. Open ocean finfish aquaculture could be introduced into New Zealand, but at a significant capital cost.
- After a long period of adjustment, the global supply of wild fish catching capacity is close to demand and much of the associated fleet is ageing. The New Zealand domestic deepsea fleet was established in the 1980s and 1990s through the acquisition of high-quality second-hand vessels from the northern hemisphere, which during that period had over capacity and decreasing fish to catch. The number of second-hand vessels currently available to be imported into New Zealand is limited and suitable new builds are very expensive.
- In keeping with economic history, international experience and what is happening in the New Zealand primary sector generally, industrialisation has provided New Zealanders who might once have worked at sea with access to a wider range of job options, many of which have higher wages, more pleasant working conditions, and require less effort and risk.[22]
- Many developed countries are increasingly facing difficulties attracting workers into their domestic seafood sectors and the global pool of experienced and qualified workers is in high demand.
- Precision harvesting techniques and other technologies are being developed to increase the value and efficiency of fishing and better meet environmental objectives. Automation of processing is continuing to advance especially in operations where most of the processing is a single or limited number of species, such as mussels and salmon. To reach international best practice will require some New Zealand operators to invest significant capital into new vessels and new or upgraded processing plants.

4.2 Context and history

4.2.1 Wild capture

The inshore waters of Aotearoa New Zealand have been fished for domestic consumption for centuries.

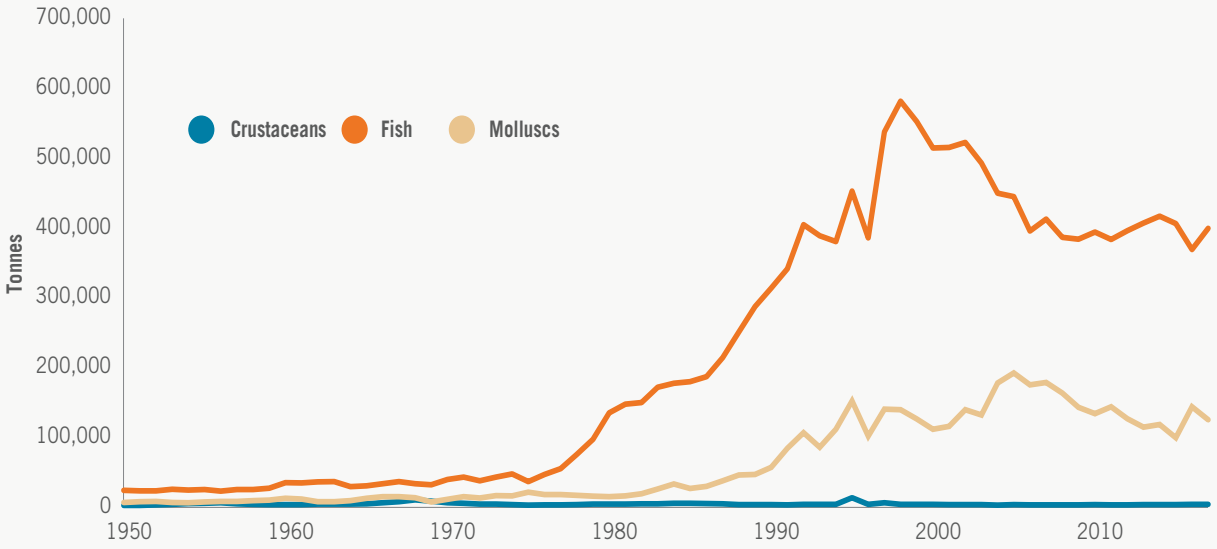
The relative isolation of New Zealand from the large, industrialised fishing nations of the northern hemisphere delayed the development of commercial fishing in the surrounding deepsea until the early 1960s. The government of the day aimed at expanding the fishing industry, through de-regulation, concessional loans and export subsidies. Initially, the plan was successful, with the fleet growing from 1,727 to 5,178 vessels between 1963 and 1973, while landings increased by a 6-7 percent annual rate over the twenty years to 1983.[23]

22 New Zealand has a very large proportion of its population residing offshore. Estimates vary, but the OECD suggests that about 750,000 New Zealand-born people live overseas (Carey (2019)). This means that the job opportunities open to Kiwis may well be outside the country.

23 Rees (2005).

Figure 5: Fishing grew quickly from the 1970s, but has plateaued since 2004

New Zealand total catch



Source: Food and Agriculture Organisation

This initial growth was not, however, sustainable. By the late 1970s, overcapacity and a lack of output controls were apparent, inshore stocks were under threat and a number of fishers were in arrears on state loans.[24]

In the early days of the deepsea fisheries, before the QMS was introduced, New Zealand only had limited capacity to fish in the Exclusive Economic Zone (EEZ).[25] Catch that New Zealand-registered vessels could not harvest was allocated to foreign countries under government-to-government licence agreements. Foreign licence agreements were a temporary measure while domestic fishing capacity and expertise was built up. To help expand the domestic fishing industry, New Zealand operators were encouraged to engage in joint ventures with overseas fishing companies.

Reforms introduced in the late 1980s, which are still largely in place, were intended to lead to a profitable, growing industry.[26] New Zealand has been managing fishing within our EEZ, using the QMS, since the mid-1980s.

New Zealand ratified the United Nations Convention on the Law of the Sea (UNCLOS) in 1996. The Convention confirmed New Zealand's full sovereignty over the Territorial Sea[27] and its more limited sovereign rights (primarily the right to exploit and manage fisheries and other natural resources and to protect the marine environment) over the EEZ.

Following concerns around the use of foreign charter vessels raised in 2009 and based on recommendations of the Ministerial Inquiry into the use and operation of Foreign Charter Vessels, the Fisheries Act 1996 was amended to require all vessels fishing in New Zealand to be flagged to New Zealand from 1 May 2016. The reflagging of foreign-flagged vessels means that the full suite of New Zealand legislation (including health and safety and employment law) applies to all vessels operating in New Zealand waters.

24 Winder (2018).

25 The area of marine waters beyond the Territorial Sea, between 12 nautical miles and 200 nautical miles (370 km, 230 mi) from the coast. The exception to the 200 nautical mile limit is where resulting points would be closer to another country. New Zealand's only maritime neighbour is Australia. The exclusive economic zones of New Zealand and Australia touch between Northland and Three Kings Islands and Lord Howe and Norfolk Islands in the north and between the Auckland Islands and Macquarie Island in the south and the Australia–New Zealand Maritime Treaty formally delimits the maritime boundary between the two countries in these areas.

26 Clark et al. (1988).

27 New Zealand's territorial sea is a belt of coastal waters extending at 12 nautical miles (22.2km, 13.8 mi) from the mean low water mark.

4.2.2 Aquaculture

Aquaculture has been undertaken in Aotearoa for centuries. There are examples of Māori relocating and enhancing wild stocks of kaimoana, including seeding and relocating pāua. Today, the aquaculture industry is primarily comprised of farming activities for oysters, green-lipped mussels, and chinook, or king salmon.

The legislative framework governing aquaculture is complex and can be a barrier to growth in the industry. The legislation during the initial development period of the sector was the Marine Farming Act 1971 (MFA). It was superseded by the Resource Management Act 1991, although the MFA continued to apply to existing farms. By 1991 there were 677 authorised marine farms in New Zealand, which has left a legacy of older-style aquaculture consents.

Future legislation for inshore aquaculture is currently being addressed through resource management reforms. At the time of writing a decision has not yet been made on whether open ocean aquaculture will be managed under the proposed Natural and Built Environments Act, or through bespoke legislation.

Aquaculture is a focus area under the Government's Fit for a Better World roadmap, which has set an ambitious goal to increase the annual revenue of aquaculture to $3 billion by 2030.

One option being considered by industry is the introduction into New Zealand of open ocean finfish farming. Facilities currently used in Norway, for example, involve large, highly automated, remotely managed cages. While these innovative operations are not immediately being proposed in New Zealand, if introduced they would only need a small water-based crew moving from farm to farm as required. Processing, however, still happens onshore. Because these farms often grow a single species bred for uniformity of size, automated processing may be possible. These sorts of operations would allow a significant increase in seafood production in New Zealand without a commensurate increase in either local or migrant labour. During the initial establishment stage, however, specialist migrant labour might need to accompany these facilities.

Case study – Efforts to recruit

Aquaculture, in particular onshore processing, has been severely hit by reduced access to temporary migrants, including working holiday visa holders. It is estimated that there are currently approximately 550 vacancies in the aquaculture sub-sector (mainly in shore-based roles) despite efforts to attract new entrants into the industry.

Numerous recruitment initiatives have been carried out by individual companies, including comprehensive advertising, increasing pay rates (by up to 25 percent in some cases), working with WINZ and MSD, and liaising with local migrant communities.

Aquaculture New Zealand (AQNZ) is working closely with the Primary ITO and MPI on advertising careers, available vacancies, and training within the aquaculture industry. AQNZ also provided content for MPI's *Opportunity Grows Here* campaign.

In early 2021, seafood companies Sanford, Talley's and Sealord co-funded *Catch a Job* – a Top of the South regional recruitment campaign led by the Nelson Tasman Regional Development Agency with MSD and the interim Regional Skills Leadership Group. The campaign reached 85,000 people on social media and resulted in more than 800 expressions of interest; however, only 35 people (4 percent) were employed.

Apprenticeships may help attract young people to careers in the industry, filling a current gap in vocational training available. The Primary ITO is in the final stages of submitting the updated qualifications for Level 3 and Level 4 Certificates in Aquaculture with strands in Hatchery, Finfish, Shellfish and Diving to NZQA for approval. The programme will hopefully be available in 2022.

4.3 Different business practices

There is a wide spectrum of business models applied in the seafood sector.

At one end are the vertically integrated operators. They own quota and have access to modern, efficient vessels and processing plants that can sell products at scale into their chosen markets. At the other end of the spectrum are small independent operators, who own one, normally old, vessel that is expensive to maintain, use basic technology, do not own quota and therefore must lease catching rights to be able to fish. These operators generally do not sell direct to market, and therefore are dependent on prices offered by their licensed fish receiver (who may also lease the catching rights to the operator).

There are four sub-sectors that we have used to characterise the sector and understand the various drivers for the employment of migrant labour:

- Inshore fishing (at sea);
- Deepsea fishing (at sea);
- Onshore processing of wild-caught and farmed species; and
- Aquaculture (farming operations).

The deepsea sub-sector can be further divided into ex-foreign charter vessels that were required to be reflagged into the New Zealand register as of 2016 and those that were already New Zealand owned and operated.

Table 2: Four sub-sectors

Sub-sector	Characteristics
Inshore fishing (at sea).	Always New Zealand flagged vessels. Mostly New Zealand crew. Increasing use of migrant labour to 'top-up' crew. Crew is more itinerant.
Deepsea fishing (at sea).	11 Ex-foreign charter vessels, usually 100 percent migrant crew.[28] 29 'domestic' vessels which prefer to hire New Zealanders, and use foreign labour as a 'top-up'.
Aquaculture (at sea).	Location driven by environmental factors. High volume growth potential.
Onshore processing.	Often in regional centres. Seasonal workforce – requires additional resource at peak seasons. Increasingly reliant on working holiday visa holders. High automation potential in some single-species operations.

4.4 A diverse sector

The seafood sector is diverse, and the characteristics of each sub-sector are reflected in its operations and thus the mix of labour and capital employed. As individual firms look to efficiently undertake their businesses, their demand for skills and labour is likely to change in response to seasonal activities and market conditions. This means that sub-sectors of the seafood labour market will be both diverse and dynamic.

Not only are skills and employment conditions different, but the balance of full-time, part-time and seasonal roles will also vary between the sub-sectors and over time – both during the year and longer term.

This diversity will be reflected in how firms will look to attract, train and upskill, and retain people. It will also mean the labour pool for various roles will differ. While some people will work their way from the deck to the wheelhouse, or from the processing factory floor to the management suite, in the short-term, at least, different levels of employees will likely be drawn from different recruitment pools.

We turn now to discuss each of the sub-sectors to give a more detailed flavour of the diversity of the sector.

28 One other such vessel left New Zealand waters during the course of our Inquiry.

4.5 Inshore fishing (at sea)

4.5.1 Operations

Inshore fishing is characterised by relatively frequent, short trips to sea of between one to ten days, mostly on small vessels with two to five crew. There are, however, some vessels with crews as large as eight or nine. The fleet is generally ageing, with 82 percent of the vessels plying the trade over 20 years old. There is virtually no processing of fish at sea beyond very quick, manual gutting of some species. The work can be wet, cold and in rough seas.

Inshore fisheries yield a harvest of around 85,000 tonnes of catch per year. The highest volume species include blue mackerel, Jack mackerel, skipjack tuna and snapper. The highest value species include rock lobster, which is primarily exported, and snapper.

Other than rock lobster and the higher volume species, inshore species are primarily sold on the domestic market.

The number of vessels that have fished inshore waters annually has decreased significantly from 2,389 in 1990/91 to approximately 820 vessels currently active in the inshore fisheries.

Inshore fishers are often owner/operators and frequently do not own quota. They are therefore reliant on quota owners or brokers to source appropriate catching rights. They often contract to licensed fish receivers who dictate the price of the fish that is landed, resulting in less control over profit margins and thus, the ability to increase wages for their crew.

4.5.2 Labour market considerations

Nearly all pay in inshore fisheries is based on catch-share agreements, which means a fisher's income is dependent on their position on the vessel, experience and the volume, quality and ultimate selling price of the catch. Many of these fishers are engaged as independent contractors (other than migrants who are employed as per immigration requirements). As activity is weather dependent and catch is subject to seasonal abundance there is greater uncertainty of income when pay is based on catch on a trip-by-trip basis rather than on hours worked.

There used to be very few migrants working in the inshore fishing sector; however, the use of migrant labour has increased in the last decade, mostly on larger vessels. The number of migrants on each vessel remains relatively low (typically in the range of one to three crew depending on vessel size) at present.

Submitters identified key drivers for hiring migrant crew to be a lack of people willing and able to meet health and safety requirements (such as drug and alcohol testing), live the lifestyle required (being at sea five days full time, at home two days), and reliably turn up to shifts as expected. The poor perception of the industry and urbanisation of younger New Zealanders were also raised as potential barriers to increasing the number of locals working in the sub-sector.

4.6 Deepsea fishing (at sea)

4.6.1 Operations

Deepsea fishing is characterised by long trips to sea (typically four to eight weeks[29]) on large vessels with manning levels ranging from 30 to 85 crew. There are various roles aboard a deepsea factory vessel including engineers, technicians, factory managers, cooks, deckhands, and wheelhouse officers. Most crew work below deck in the factory processing fish for six to twelve hours at a time depending on shift structure. Some processing is automated, but there is limited opportunity to increase automation at sea due to space constraints onboard and catching multiple species each trip.

New Zealand crew are a mixture of employees and independent contractors, and foreign crew are employed as per immigration requirements.[30]

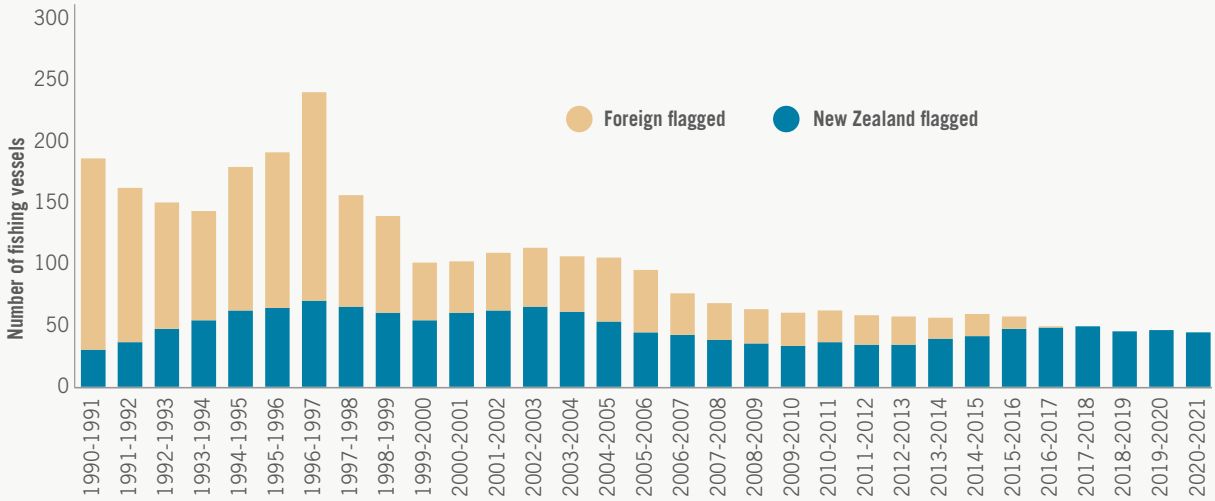
There has been a significant reduction over time in the use of foreign-owned vessels and migrant crew in the deepsea sector. In 1990 there were over 100 foreign-owned vessels with 100 percent foreign crew operating in the New Zealand EEZ.[31]

29 Some vessels do, however, undertake shorter trips of between ten days and four weeks, while others do trips up to three to four months in duration.

30 See Section 5 below for more details on the numbers of people employed on various visas.

31 We define 'deepsea' as vessels that process and freeze fish at sea. Vessels larger than 28 metres in length have been used as a proxy given the historical data does not explicitly identify which vessels had freezer capacity. There are 4 vessels greater than 28 metres currently operating in New Zealand which are not freezer vessels.

Figure 6:The deepsea fleet – Registered vessels greater than 28 metres in length by flag state



Source: MPI

The current deepsea fleet is comprised of:

- Six 104.5 metre long BATM-class sister ships, which are 100 percent foreign-crewed;[32]
- Five non-BATM class foreign-owned vessels of between 50 and 68 metres, which are virtually 100 percent foreign-crewed;[33] and
- Twenty-nine New Zealand-owned vessels of between 19 and 82 metres, which are predominately New Zealand-crewed.

The majority of vessels currently in New Zealand were acquired in the 1990s when there was significant overcapacity in the northern hemisphere and vessels were readily available for purchase.

There are few such vessels available for purchase today and many of the current vessels in the New Zealand fleet are ageing.

No shipyard in New Zealand has the capacity or capability to build vessels of the size required to operate in the deepsea fisheries, and therefore new vessels must be procured from overseas. The most recent new build, brought to New Zealand by Sealord in 2018, took over two years to build and cost over $70 million. Estimates for new builds now exceed $100 million, requiring significant capital investment and long-term planning.

4.6.2 Labour market considerations

Crew in the deepsea fisheries are generally engaged on longer term agreements. Most are remunerated on a catch-share basis. Some companies operate trip on/trip off rotations while others run two on/one off.[34] Many crew are paid for the time between trips, and will be on board the vessel for a total of 6-10 months of the year across all trips.

All operations of the 100 percent foreign-crewed vessels are subject to the same legal requirements as the remainder of the fleet in terms of health and safety, labour, and fisheries regulations. These vessels currently do not rotate crews between trips but have crew on either six months on/six months off rotations, or annual/multi-annual contracts where they work continuously for the duration of their contracts (with some exceptions for shore-leave where they may visit their home country).

There is a perception that migrant crew are only employed because they can be paid lower wage rates.[35] While this is not apparent in the official data, we were told that some crew on 100 percent foreign-crewed vessels are paid less than their counterparts on New Zealand-crewed vessels. However, focusing

32 BATM is a still-in-use Soviet era general designation which stands for Bolshoy Avtonomniy Trawler Morozilniy, or Big Autonomous Trawler Reefer, in English. Two of these vessels are New Zealand-owned, and four are in foreign ownership.

33 Some crew on these vessels have become New Zealand residents and/or citizens throughout their time working on vessels in New Zealand, although the specific pathway is unknown.

34 Due to COVID-19 restrictions and shortages of crew, some companies are now offering their New Zealand-based crew increased sailings and the opportunity to significantly increase earnings.

35 Work that two of us did for the Productivity Commission suggests that the conditions placed on Fishing Crew Work visas which tie the visa-holder to a single employer in New Zealand might represent a regulatory subsidy. See Fry and Wilson (2021).

on pay alone can give a misleading impression of a complex structure in the industry.

Pay rates are not the only reason foreign crew are engaged on vessels fishing in New Zealand.[36] Operators prefer to hire fully trained and experienced crew,[37] and appreciate that the costs of training and gaining experience are met by others. Several countries, like Russia, Korea, and Indonesia operate dedicated education providers who train highly skilled and sought-after seafarers to work around the world. Migrant workers from these countries work on vessels in New Zealand. These highly-trained seafarers are also more experienced in undertaking onboard repairs and maintenance than New Zealand workers who have not had the same training. This translates to reduced downtime and reliance on shore-based support services. All up, 100 percent foreign-crewed vessels can be more efficient and continue to enjoy a cost advantage over New Zealand-crewed vessels.

There are migrant crew on some other vessels in the remainder of the fleet. Based on submissions, key drivers for using migrant labour on the non-100 percent foreign crewed vessels included the health and safety and experience and training requirements. In addition, there appear to be few qualified New Zealanders available and able to work onboard the vessels, in part due to these requirements, but also because of the lack of a clear career pathway and training opportunities for crew. Relative pay in the seafood sector, compared to the opportunities locals have onshore and to what could be earned on the water in the past, has fallen.

A number of deepsea operators have indicated a preference to hire New Zealanders, and to move towards that as the default, but many have noted that this transition will take time and investment. In many cases, this will require capital investment in new vessels. A vessel and its crew are an integrated package, with each vessel having its own particular features that take time to master. Adding New Zealand crew to a foreign-crewed vessel one at a time is certainly technically possible, but would come at a cost to efficiency and safety. Thus, the move to increased numbers of New Zealand crew on deepsea vessels is really a story of replacing the whole vessel, not just individual crew. Put another way, moves to introduce less than a full foreign crew would likely see these vessels leave New Zealand and not be replaced.

4.7 Onshore processing of wild-caught fish and aquaculture species

4.7.1 Operations

Onshore processing is primarily regionally-based in locations convenient to harvest areas (e.g. Havelock, Whitianga, Greymouth, Bluff). Processing facilities are by necessity cold, and the work requires shifts standing at a conveyor belt carrying out duties including filleting and trimming fish, shucking oysters, opening mussels, and packing product. Some facilities use automation, including mussel opening machines, but submitters noted that this tends to increase throughput rather than reduce the need for labour (that is, the product is processed more efficiently and workers are redeployed to packaging roles).

4.7.2 Labour market considerations

Most of the work is shift-based, as processing facilities often operate around the clock, and in some cases labour needs vary seasonally. In finfish processing facilities, one key season is the 18-week long hoki spawn, and the workforce has historically increased to accommodate this.

For aquaculture, the mussel harvesting season generally lasts around 45 weeks, from September to June.

Pay arrangements are a mixture of hourly and piece-rates which are intended to increase worker productivity.

Over the last decade there has been an increase in the use of migrant labour in the shore-based processing sector, particularly in aquaculture processing. Given the seasonal nature of the work, much of this has been undertaken by working holidaymakers and students.[38] The industry informed us that few, if any, seafood processing workers are employed on the Essential

36 Crew in the same position on different vessels (even within the same company) can earn significantly different incomes due to a range of variables: the proportion of high and low value species in the annual catch plan; the maximum daily harvesting and processing capability of the vessel; the processed state of the catch, the level of risk vs reward in the contract; the sea keeping ability of the vessel; and so on. As crew gain experience and reputation in the industry, they will move onto higher paying vessels when the opportunity presents.

37 Experience on a single vessel reduces health and safety risks and increases productivity and efficiency.

38 While most working holiday schemes allow visitors to stay in New Zealand for between 12 and 24 months, there is a definite seasonal peak across the spring and summer. Most foreign students in New Zealand are allowed to work full-time during holidays, compared to a 20 hour a week limit during term time.

Skills temporary visa, which is the most common sort of short-term visa currently issued by Immigration New Zealand. However, we were advised by MBIE that there are approximately 300 people on short-term visas (Essential Skills and Work-to-Residence) listed in official data as being employed as seafood processing workers. It is possible that the experience we were told about reflects the situation in particular locations, since the work test for the Essential Skills visa does involve an assessment of the labour market in the specific area the migrants will be employed.

A number of submitters noted that the seafood sector could not access migrants in New Zealand under the Recognised Seasonal Employer (RSE) scheme, which operates in the horticulture sector.

Due to the regional locations of factories, accomodation, transport, and social isolation have been raised as barriers to recruitment. Some operators have indicated recent changes made to attract more workers. These include new shifts that align with school hours, and significant increases in pay rates in some areas.

4.8 Aquaculture (farming operations)

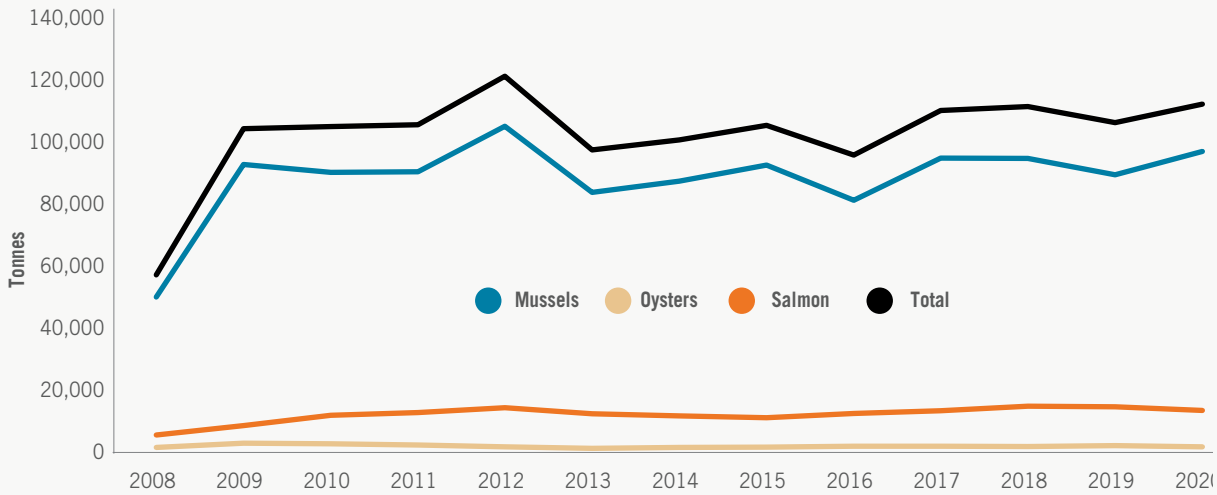
4.8.1 Operations

The aquaculture sector involves both onshore farming activities (such as mussel rope maintenance) and support services (hatcheries, float manufacture, etc.) and on-water farm maintenance, farming and harvesting. Farming operations are generally located in more remote parts of the coastline (e.g. Coromandel, Marlborough Sounds, Stewart Island).[39]

Until 2018, the limited expansion of approved water space and complex regulatory environment constrained increases in production. Companies generally focused on increasing the value of product as opposed to the volume.

The majority of increased water space made available in 2018 is still undeveloped or has not produced harvestable crops yet. When this additional volume comes online, there will be a significant increase in demand for processing, which will require additional labour.

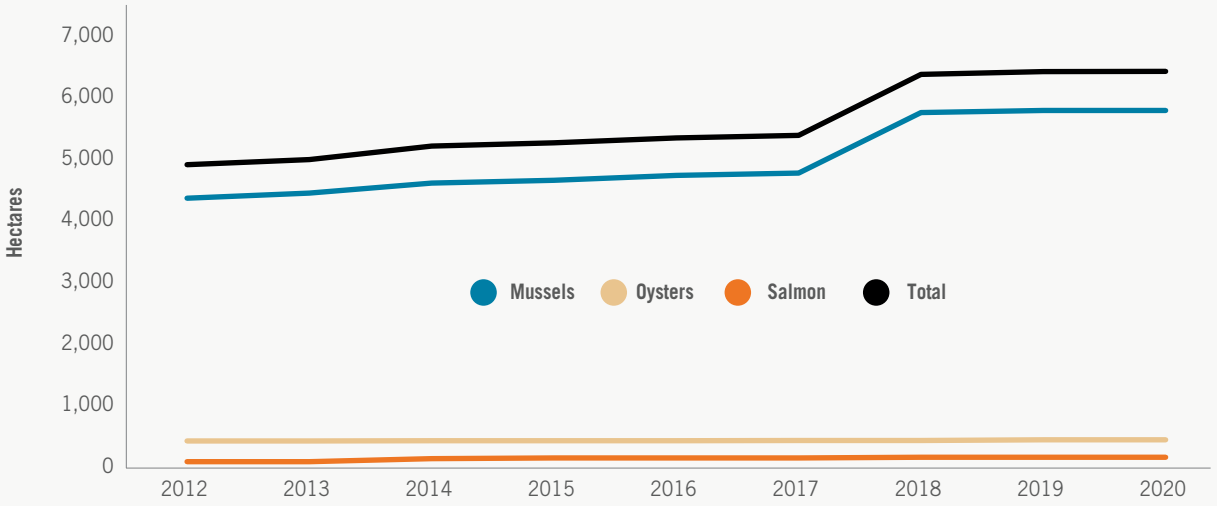
Figure 7: Aquaculture production (tonnes)



Source: MPI

39 Water temperature, quality and nutrient levels dictate location, meaning, for example, that it is unlikely that operations will be undertaken near major centres like Auckland, Wellington and even Christchurch.

Figure 8: Approved water space



Source: MPI

Note:
1 2012 figures represent space in use, figures for 2013 – 2020 cover total water space approved (some of which may not yet be in use).

4.8.2 Labour market considerations

Aquaculture farming appears to use relatively low numbers of migrant workers. However, the demand for migrant workers is likely to increase as the sector grows and diversifies. There will be a greater reliance on technical skills coming from offshore, particularly in the finfish farming area, where New Zealand is likely to be a 'smart follower'.

The regional nature of the operations can add to difficulties in finding staff given these areas often have insufficient housing, limited transportation from other centres, and require some level of isolation from urban centres and whānau. The data provided by submitters indicated that the at sea aquaculture operations are comparatively lower paid, which may need to change to attract suitable workers as the industry expands.

5 A stocktake of seafood sector employment

Our terms of reference require us to undertake a stocktake of employment in the seafood sector.

5.1 Limited reliable data

It became apparent to us early in our process that reliable, consistent data on the number of people employed in the seafood sector, what proportion of them were migrants and what parts of the sector they worked in, was going to be difficult to obtain.

Our Secretariat has undertaken a bespoke analysis of various official databases in consultation with other agencies to provide us with the most robust data available. We have also used analysis of the number and size of fishing vessels registered in New Zealand to cross-check the data on at sea employee numbers within the various fishing fleets.

In addition, we sought and received data from both individual fishers and larger companies in New Zealand about who they employ and in what numbers, rates of pay and other aspects of their operations.

We have the most confidence in our estimate of the number of roles, people employed and proportion of migrants in the at sea parts of the sector. The number of fishing vessels registered to fish in New Zealand and their length can be obtained from official data. The length of the vessel is a good proxy for the number of crew positions. Visa data is available for the crews. There are official statistics on the number of working holidaymakers; however, as these visa holders have open work rights, the official data does not link them to a specific employer.[40]

We are confident that the data we have assembled is sufficient for the sort of policy analysis we have been tasked to undertake. We are, for example, satisfied that we have a good appreciation of the proportion of migrants working in the sector as a whole. We are less confident about the precise numbers of workers in the various sub-sectors and various locations.

5.1.1 People versus positions

An important context when considering employment numbers in the seafood sector is that many vessels, especially the larger deepsea vessels, operate on a crew rotation basis, meaning that there is a difference between the number of positions on a vessel and the number of people who work on that vessel over a period. For example, an 85-position vessel operating a trip on/trip off rotation roster would employ 170 people in a year. If that vessel were 100 percent foreign-crewed, then 170 visas would need to be issued to cover the annual crewing requirement.

The same is true in processing, where especially during peak seasons, facilities operate multiple shifts around the clock, meaning that more than one person may occupy each station on a production line on any given day.

In the following discussion we clearly identify when we are discussing positions or people.

40 It might be possible, using the Stats NZ Integrated Data Infrastructure (IDI) database to gain some insights into the employment patterns of working holidaymakers who are employed in tax-paying positions. We are not aware of any work of this nature having been published.

5.2 Estimated migrant workforce

Officials' best estimate is that in 2019, the New Zealand seafood sector had approximately 11,000 positions across the aquaculture, inshore, deepsea and seafood processing sub-sectors.[41] This equates to there being 12,400 people employed in the sector. Of these, around 20 percent, or about 2,460 people, were migrants.

5.2.1 Methodology

Officials used the following methodology in undertaking these calculations:

- Aquaculture and seafood processing employment were calculated using Australian and New Zealand Standard Industrial Classification (ANZSIC) industry codes from the Stats NZ Integrated Data Infrastructure (IDI) data based on IRD tax records.
- Aquaculture has been included as 'on shore', since while there is some sea-based activity most positions involve only day trips (in and out to sea within a day).
- The 'average positions' figures have been derived from a combination of:
  - a monthly count of employees paid using IRD records during the year ending March 2019;
  - self-employed people as of March 2019 using IRD records.
- The 'range of migrant positions' has been derived from the low and high monthly visa counts to reflect the variability of the workforce due to the seasonal nature of the work.
- The deepsea sector is estimated to employ around 2,800 people based on six-monthly or trip on/trip off rotations. Not all vessels apply this type of staff rotation; some have two trips on/one trip off, and others have crew stay on board for one or two years.
- Deepsea and inshore employment have been calculated based on vessel numbers.
- Vessel number data is for the 2018-2019 fishing year to align as closely as possible with the land-based data. Using a 2019 workforce year reflects the normal seafood workforce pre-COVID-19.

5.2.2 Results

The following two tables show officials' estimates of the employment in the sector, divided between onshore and at sea operations.

Table 3: Estimates of the sea-based workforce 2019

	Positions on vessels	Number of people	Migrant positions	Number of migrants	Migrant percent of the workforce
Deepsea	1,400	2,800	700	1,400	50 percent
Inshore	3,100	3,100	200	200	6 percent
Total	4,500	5,900	900	1,600	20 percent

Source: MPI, MBIE

41 In effect, a position is an estimate of the number of full-time roles based on the average number of people employed over the year. Four people employed for three months would be equivalent to one position. These figures are constructed using MBIE averages calculated from visa data for 2019 supplied to the Stats NZ IDI.

Table 4: Estimates of the land-based workforce 2019

	Range of positions overall	Average positions	Range of migrant positions	Average migrant positions	Migrant percent of the workforce
Aquaculture	624 – 744	700	50 – 70	60	8 percent
Seafood Processing	5,450 – 6,150	5,800	650 – 1,100	800	14 percent
Total	6,074 – 6,894	6,500	700 – 1,170	860	13 percent

Sources: MPI, MBIE, Stats NZ

In recent years, about 20 percent of employees in the seafood sector have been migrants.

Key findings

The migrant workforce varies across the sub-sectors. Inshore fishing and aquaculture employees are predominately New Zealanders, with less than ten percent of employees being migrants. Approximately 14 percent of employees in seafood processing are migrants. The deepsea fishing sub-sector is the largest employer of migrants, with 50 percent of employees being migrants. At a vessel level, 11 of the larger craft are 100 percent foreign-crewed, while the remainder have predominantly local complements.

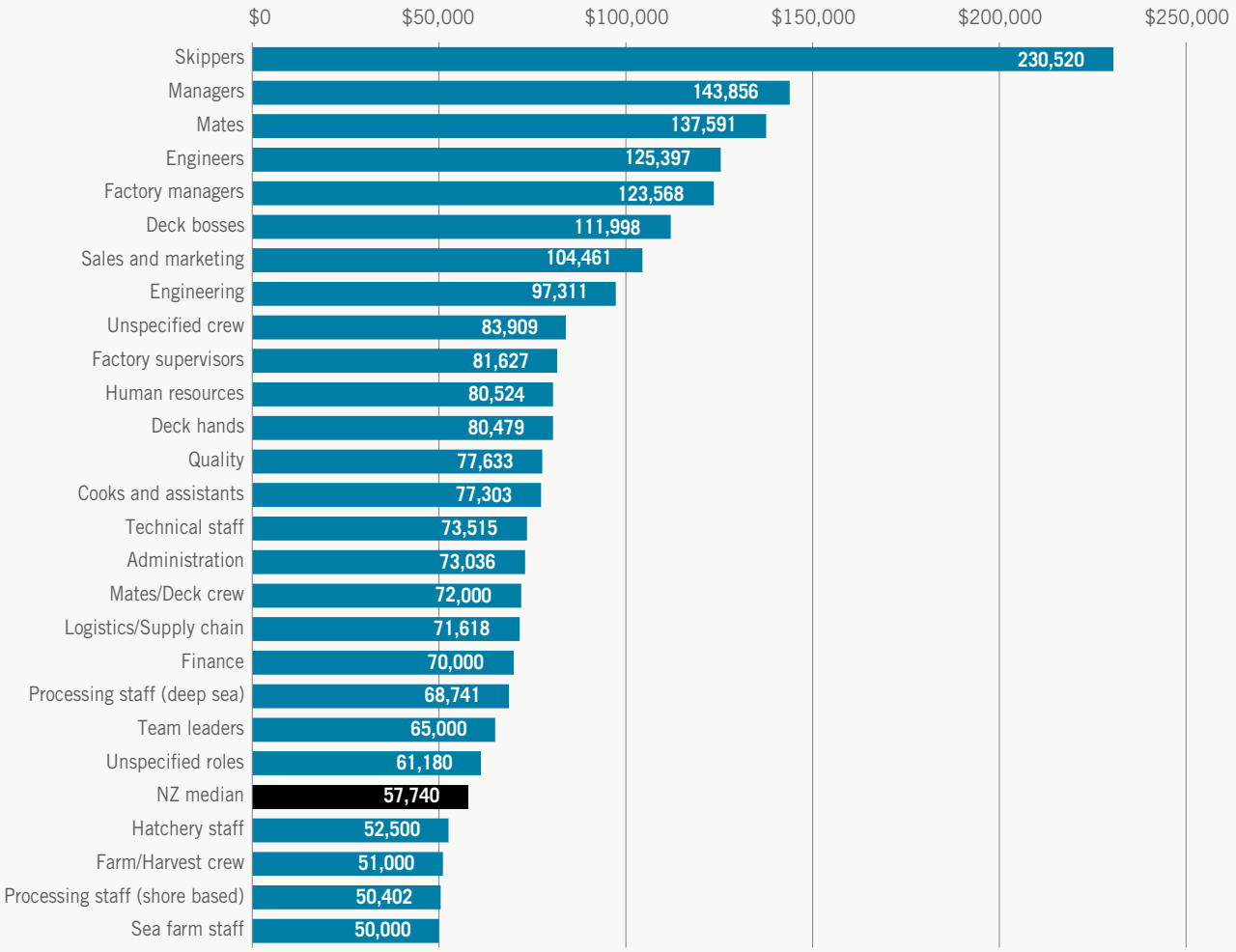
5.3 Remuneration

We found it difficult to source accurate information on the way people are remunerated in the seafood sector.

Ten of the largest firms in the sector agreed to provide us with information on their workforce, including remuneration data, which has proven very useful in helping us get a sense of how people are paid in the sector.

Figure 9 outlines the average gross earnings by role across the companies that provided us with this information. Average gross pre-tax earnings are a simple extrapolation from survey respondents based on each respondent's estimate and are not weighted by the number of people employed in each role. As a point of reference, the gross national median wage in New Zealand is currently $27.76 per hour, or $57,740 per year for those working 40 hours per week.

Figure 9: Total seafood sector earnings: large firms



Source: Survey of large seafood industry firms

Key observations from this data are:

- On average, skippers are remunerated at much higher levels than other roles in the sector, reflecting their more extensive training and experience.
- Deepsea roles consistently rank in the top 50 percent for pay.
- Processing workers on deepsea vessels get paid approximately 35 percent more than those working in shore-based processing facilities.
- Onshore processing staff are amongst the lowest paid.
- On-water aquaculture roles make up three of the four lowest remunerated roles.
- All but four roles covered are paid, on average, above the national median wage ($57,740 per year).

This last point indicates that the sector is paid at rates comparable to the rest of the workforce. However, the evident shortage of labour suggests that compensation may not be adequate to attract supply. Whether these rates are 'fair' is a difficult question to answer and is inherently subjective. Beyond this high-level comparison, we have not considered this matter further.

5.4 Labour shortages are widespread

A key message from all the stakeholders with whom we engaged is that there is a widespread shortage of labour in all parts of the industry. The data we were provided suggested that there were currently over 1,000 vacancies just in the larger firms.

This reflects a combination of supply and demand issues.

On the labour supply side, the preferences of locals and the employment choices open to them are changing.

- Young people have strong preferences to be connected to the world via mobile phones and social media, and put heavy emphasis on their social lives, which means they can struggle with being away at sea or living in remote coastal communities.
- The inherent risk in uncertain fishing activity and catch-share payment models often used for at sea roles might be less attractive for people who prefer more certain incomes and greater job security. This is potentially a greater issue for the inshore sub-sector than deepsea.[42]
- Hard physical work in demanding, high-risk environments and drug and alcohol testing also exclude some candidates.

On the labour demand side, we heard a range of views about the experience of employers.

There are situations where the demand for shore-based processing staff is inherently seasonal, for example, during the hoki spawn and mussel processing. This limits the opportunities for full-time, permanent roles.

In contrast, many people have accepted trip on/trip off rotational employment in the deepsea fishing sector to build lucrative and rewarding careers.

Some organisations are seeking to increase Māori employment in the seafood sector, as they see the opportunity for long-term, stable and highly remunerative jobs. Other organisations are working to define the framework needed to reconnect people to the ocean and provide the training and support needed for them to enter the sector.

We were told that iwi do not see a conflict between maximising financial returns from owning fishing quota and achieving high levels of Māori employment in the sector. A transition towards less reliance on migrant labour is necessary to avoid disruption to their aspirations. This transition needs to respect the mana motuhake of iwi for them to be able to realise their own plans for their seafood assets.

Key findings

- Labour shortages occur across all parts of the seafood sector.
- While a number of sector participants have plans in place to increase the domestic supply of labour, these are unlikely to reduce the overall level of shortage.
- If the sector is to continue operating at current levels, migrant labour will continue to be required.

42 Inshore fishing tends to be more affected by weather, because the smaller vessels used sometimes cannot sail due to poor conditions. The possibility of poor catches during any one trip is also greater in inshore fisheries.

6 Analysis

The number of local people willing and able to go to sea or work in onshore seafood processing has been declining for some time.

This is a global and historical trend: food producers in all OECD countries report labour shortages. Part of the reason is that potential workers have more choices to work in higher-paying, less physically demanding roles.

Technical change has long been increasing demand for more highly skilled workers relative to demand for other workers. In the early 20th century, the diffusion of electricity boosted productivity in industry and services, increasing demand for workers with complementary skills and reducing it for low-skilled labour, especially in the agricultural sector. The process continued as subsequent waves of technology were diffused, including telephones, the automobile, aeroplanes and, especially since the 1980s, information and communications technology (ICT). Technical change is increasing the demand for more highly skilled workers relative to others because high-skilled workers are complementary to the new technologies, which increases their productivity.[43]

The use of migrant labour is one common solution overseas,[44] in the wider New Zealand primary sector[45] and the New Zealand seafood industry.

The whole sector has been affected by border closures, with the extent of that impact in the various sub-sectors depending on the proportion of workers who are migrants.

While a natural response to a short-term issue, increasing use of migrants has exposed the sector to greater long-term risk if borders remain closed for longer or are closed again if there is another pandemic or other global health emergency.

6.1 The seafood sector's reliance on migrant labour

The preamble of our terms of reference states:

COVID-19 border restrictions have highlighted the seafood sector's vulnerability due to its reliance on migrant labour, and expedited work across the industry and within government to increase the participation rate of New Zealanders in the sector.

Some individual operators within the seafood sector have business models based on 100 percent foreign-crewing. An overnight move to complete local crew would place them at near-certain risk of financial collapse. The rest of the sector has more options.

But fully foreign-crewed vessels are a very small and declining part of the sector. One of these vessels has ceased fishing operations in New Zealand this year. Other operators have intentions to replace their ageing, primarily foreign-crewed vessels with modern craft, employing a majority New Zealand crew, as commercial conditions allow. New build vessels are expensive (the F/v Tokatu cost Sealord approximately $70 million), and there are few high-quality second-hand vessels of this size on the market globally.

The seafood processing sector has traditionally used temporary labour to staff the seasonal parts of its operations. With falling unemployment, increases in other employment opportunities and a general drift of population away from regional centres to cities, the sector has increasingly turned to migrant labour. Many of these migrant workers have been in New Zealand on Working Holiday or Student visas.

COVID-19 border restrictions imposed a sudden stop to the business model used by some in the processing sector and, not surprisingly, firms have struggled to adjust quickly. An historically tight labour market has made this adjustment more difficult.

The inshore fishing sub-sector has traditionally used fewer migrant crew than the deepsea sub-sector, in part because there are more people willing and able to work on vessels that make relatively short sailings. There are also fewer requirements for qualifications and training in this sub-sector. The shorter voyages typically involved in inshore fishing do not pose the same mental health challenges involved in deepsea fishing. Pre-COVID-19, however, there was a trend towards increased use of people in New Zealand on the Fishing Crew Work visa on these vessels.

6.2 Are migrant crew more reliable?

During our engagement, we were repeatedly told that one attraction of migrant crew was that they were 'more reliable' and had fewer drug and alcohol problems than local candidates.

43 OECD (2017).
44 Taylor et al. (2012).
45 Tipples (2017).

We consider that this may be an example of selection bias.[46] The migrant crew working on New Zealand vessels are not a random sample of the New Zealand workforce. By their very nature, they are likely to display different characteristics than New Zealanders who might potentially be seeking employment on a vessel, especially new entrants.

The holder of a Fishing Crew Work visa working on a New Zealand vessel has very limited choices. If they fail to turn up for a voyage without good reason, they would have nowhere to live and could face deportation and the loss of the opportunity to return to New Zealand. Likewise, they cannot easily seek employment on another vessel or elsewhere in the New Zealand economy, at least not without first leaving the country.

To apply for a Fishing Crew Work visa, applicants must have at least 12 months' work experience in a similar position.[47] All applicants for a temporary work visa are required to undergo medical and character assessments before arrival.

It is not surprising that migrant crew seem more reliable than inexperienced locals seeking employment in the sector for the first time. A better reliability test would be to compare like-with-like: New Zealanders with at least a year's experience as crew, who can pass the medical and character checks required for a visa. From what we have been told, turnover in crew falls significantly after a year on board, as people who are unsuited for the role leave the sector.

6.3 Can the sector reduce its use of migrant labour?

Using migrant labour is often a response to a mismatch between supply and demand. This points to two possible routes to increasing the proportion of local employees in the sector: increasing supply or reducing demand.

6.3.1 Increasing the supply of local labour

Increasing the number of people capable of taking up roles in the sector could be achieved via multiple routes. Submitters identified a number of ways to increase the attractiveness of sea-going roles to New Zealanders, including providing training and opportunities for career development and increasing automation to reduce the physical demand of jobs.

For at sea roles, local training that matches what is available in some maritime countries overseas is an option.[48] There is currently only one education provider, the Westport Deepsea Fishing School, offering training for deepsea fishers.

We note that there is currently no dedicated training vessel operating in New Zealand that could give potential crew practical on-the-water experience, nor are apprenticeships or cadetships often offered. On-sea experience is typically arranged on an ad hoc basis.

The Targeted Training and Apprenticeship Fund [49] will cover fees for training and education in the sector until the end of 2022, and employers that take on and retain an apprentice are also currently eligible for the Apprenticeship Boost payments paid for by Work and Income.[50] There are some courses available through the Primary ITO and Te Pūkenga[51] and a handful of private training establishments. We are aware that the sector's broader engagement with the education system is being considered as part of the Seafood Workforce Transition Plan.

We were advised that the New Zealand-wide Reform of Vocational Education (RoVE) programme will improve training in all sectors by incentivising learning on the job, responding to industry and creating a national network of provision that is more responsive to employer, learner, and regional skill needs.[52]

46 Selection bias is a phenomenon in statistical analysis where the method used to collect the subjects for study results in a distorted sample. See Heckman (1998).
47 Section WJ6.1 of the Immigration New Zealand Operational Manual.
48 In the time available, we have not been able to assess the type of training provided overseas, what infrastructure is required to support it and whether it is considered to be a valuable use of public funds in the countries concerned.
49 https://www.tec.govt.nz/funding/funding-and-performance/funding/fund-finder/targeted-training-and-apprenticeship-fund/
50 https://www.workandincome.govt.nz/employers/subsidies-training-and-other-help/apprenticeship-boost/index.html
51 Courses are run by the Nelson Marlborough Institute of Technology.
52 For more details of the RoVE programme, see the Tertiary Education Commission's website: https://www.tec.govt.nz/rove/reform-of-vocational-education/.

Case study – Westport Deepsea Fishing School

The Westport Deepsea Fishing School is the only company currently providing pre-employment training for the seafood sector and is one of the last providers of live-in training in New Zealand.

It provides practical training based on industry-created and NZQA-approved qualifications, giving students the skills and experience they need for full time employment in the sector.

The school has a sterling track record in identifying and training suitable candidates. It has never had a student complete the training and not get a job. Students graduate without debt.

The Westport Deepsea Fishing School offers pathways for new entrants in both inshore and deepsea positions as well as existing crew within the industry. These pathways cover maritime and engineering and lead to Maritime NZ statutory licences. There is no training vessel operated by the industry or by a training establishment, and only limited seafood-specific training offered elsewhere.

It is hardly surprising that when employers need highly-qualified seafood workers, they look offshore.

Currently, the school has enough funding to provide training for 120 people, which comes from a range of sources (the Tertiary Education Commission, the Ministry for Social Development, and scholarships provided by deepsea fishing companies).

The School is actively looking for more of the right kind of people to take up the places it has on offer.

The newly formed Muka Tāngata – People, Food and Fibre Workforce Development Council, covering the fishing and aquaculture industries, will work with industry to ensure that qualifications and training pathways reflect the skills that industries require now and in the future.

We have been told numerous times that drug and alcohol testing precludes many applicants from being hired. The prospect of testing discourages others from applying for advertised positions that they would be capable of doing if they were clean and sober. The solutions to this issue are also outside our remit, but it was so frequently raised that we wish to record the evident concerns of the sector.

We were also informed that mental wellbeing could be problematic, particularly with new entrants experiencing being at sea for extended periods. We heard of examples where vessels needed to return to port to allow specialist care to be provided to crew. Again, in the time available, we were unable to examine in detail whether this is specific to the seafood sector or a wider social issue. We do not know, for example, whether there are assessment tools available that could be used to identify potential problems before employees are at sea.

We were also told about initiatives aimed at getting New Zealanders engaged and employed in the seafood sector. Te Pūtea Whakatupu Trust focuses on building the relationship of Māori with the ocean, re-engaging with fishing, and utilising their interests in the sector to improve opportunities for rangatahi.[53] In a similar vein, the Change Office is actively using social media to promote the seafood sector as an employer of choice and increase recruitment into the sector.[54]

6.3.2 Reducing the demand for labour

Reducing demand for labour while continuing to operate requires automation and other labour-saving techniques to be employed.

Some older vessels in the New Zealand fleet are designed to catch species destined for either onshore reprocessing or export to developing countries. Value-added opportunities for New Zealand's high volume, lower-value commodity species such as barracouta, squid, mackerel and southern blue whiting are currently very limited. The market expectation is that these species are supplied either whole or in head and gutted state. Heading and gutting requires labour-intensive processing activity onboard. While automation in processing, grading and packing are possible on a species-by-species basis, equipment capable of automating the entire process for all four species on the same vessel in an annual catching cycle does not exist. Partial automation is a possibility when new replacement vessels come online. Deepsea factory trawlers that target hoki for the majority of the year have been automated, with mechanical filleting

53 See, for example, the work of Te Pūtea Whakatupu Trust outlined on its website at https://www.tpwt.maori.nz/.
54 For an example, see: https://www.facebook.com/watch/?v=245648367153664&ref=sharing.

Case study – O P Columbia

O P Columbia (OPC) is a Whitianga-based aquaculture company primarily focused on greenshell mussels.

OPC has found it difficult to access the labour it needs. It can employ up to 180 people and could process 12,000 tonnes of raw material. Prior to COVID-19, OPC employed around 110 people. The company currently employs 80 staff and is processing 5000 tonnes per season.

The company has explored a variety of different strategies to attract workers.

Before the pandemic, OPC employed many students and working holidaymakers in processing roles. They also worked with Greenstone, a Hamilton-based work broker, to recruit the partners of Filipino workers who had been brought to New Zealand to work in the dairy industry. The company settled on the purchase of a lodge that sleeps 18-20 people in March 2020, but this is currently not in use due to COVID-19.

After COVID-19 spread to New Zealand, OPC also recruited 8 foreign workers whose visas were about to expire. This involved supporting applications for a 3-year work visa at an upfront cost of $4000 per worker, and a commitment to pay at least $25.50 per hour and provide work in the off-season.

In addition to recruiting, OPC is focused on retention of its current workforce. Pay has increased to 2c per piece for piece rates and factory staff are paid between $25.50 and $30 per hour depending on their experience and skill set.

OPC has a strong focus on wellbeing and pastoral care. The company funds a worker wellbeing programme in conjunction with the local DHB and provides counselling through EAP services. The company has also started providing a daily staff breakfast, alternating fruit and cereal with spaghetti/baked beans and toast.

and skinning machines, significantly reducing labour requirements.

Some harvesting and processing in the New Zealand aquaculture sub-sector is currently automated and this is economic if the machines can be used on large production runs of a single species. Machine opening of mussels is an example and this has been made more viable with improved spat breeding capability which means mussels can be bred for characteristics like regular sizing. We were told that further developments are being investigated.

The Government's aquaculture strategy envisages the possible development of open ocean finfish farming in New Zealand. Overseas examples of this type of farming involve highly mechanised operations, with remote operators monitoring facilities and a small number of crew who move between farms undertaking tasks like refilling feed hoppers. Such innovative facilities can cost in the hundreds of millions of dollars each. Initial consent applications in New Zealand propose using variations on the existing farming technologies present in New Zealand, rather than these unproven offshore concepts.

6.3.3 A new equilibrium

A New Zealand seafood sector that employs fewer migrants is technically possible.

Moving to that new world would require effort, capital and time. Assessing the business case for some of the initiatives necessary, like training facilities and new investments, is beyond the scope of this Inquiry, but is something government and firms should consider in further detail.

We are not aware of any particular market failure that might justify providing financial assistance to the sector.

However, it is clear that many seafood operations, particularly those with limited access to capital, would face difficulties if required to stop employing migrants suddenly. Transitioning to new, more capital-intensive operating models over a longer timeframe is likely possible, and indeed, is something that some firms we spoke to told us they aspire to.

Making the best use of available resources is important for the future economic and social development of New Zealand, and competition between firms for scarce resources should be allowed to play out. However, Government needs to be alive to the human impact this constrained environment is currently having on people in the sector. In the course of our engagement, we heard a great deal of concern from a number of employers about the prospects for their business if they are unable to find more workers.

6.4 Do all commercial species need to be fished?

A number of existing operators submitted that New Zealand has obligations under the United Nations Convention on the Law of the Sea (UNCLOS) that requires all commercial species within our Exclusive Economic Zone to be fished. The implication, we were told, was that if all New Zealand-flagged vessels fishing a particular species stopped operating because requirements to employ local labour rendered their operations uneconomic, New Zealand must permit foreign-flagged vessels to do so. The practical effect might even be that the very same vessels would be reflagged and would continue to fish, but the profits would go to new, foreign operators.

Our understanding is that the Convention is more nuanced and placing restrictions on the use of foreign labour in the seafood sector is not incompatible with New Zealand's international obligations. It is clear, for example, that there was nothing in UNCLOS that prevented New Zealand from requiring all vessels operating in the EEZ to be New Zealand-flagged and thus subject to local labour laws.

We are also aware of examples of certain fish stocks that are not fished in New Zealand, like the jig squid quota.

Thus, while it is a theoretical possibility, we are confident it is unlikely in practice that the sorts of reforms we have in mind would require New Zealand to allow fishing by foreign-flagged vessels in our EEZ.

Case study – Squid jig fishery

In 1989, 53,872 tonnes of squid was caught by the method of jigging, predominantly by a large fleet of foreign flagged vessels that fished in New Zealand waters on a seasonal basis. At current market prices, this catch would have been worth more than US$160 million in export sales revenue.

Jig vessels are generally only set up for that specific method of fishing and only for targeting squid, which are available to catch on a seasonal basis only. It was not economical for a New Zealand operator to own such specialised vessels for a short season. The international jig fleet has an annual cycle, moving between jurisdictions to maintain a twelve-month catching operation.

Quota allocations of over 60,000 tonnes had been granted to New Zealanders when the QMS was established in 1986 based on the fishing activity of foreign-licensed fishing vessels operating through New Zealand companies in the pre-QMS era. The fishery remained strong until the mid-1990s when the bulk of this international fleet relocated to the South Atlantic where fishing was more productive and access fees lower.

By the time the South Atlantic boom was over and vessels owners began enquiring about opportunities to re-engage with New Zealand quota owners, policy and regulatory changes concerning the use of foreign-flagged vessels and foreign crews had shut the door to seasonal fishing with foreign capital.

In 2016, post the implementation of the reflagging legislation, the total allowable commercial catch for jig squid was reduced from 50,000 tonnes to 5,000 tonnes (to reduce the cost recovery burden on quota owners) and for the last three years there has been zero catch in this fishery.

7 A way forward

Our analysis indicates that the seafood sector will need to employ some level of migrant labour. The alternative would be significant disruption to the seafood sector, with the risk that some operations would either cease or reduce scale considerably.

Our core recommendation, therefore, is that the Government should increase the certainty and predictability of migrant flows into the seafood sector, in exchange for constraining the number of migrants employed to increase the incentives on firms to adapt the way they operate, so they become more reliant on local workers.

These reforms should be supported by increased training and promotion of the sector and an actively promoted, consistent whole-of-government view of the seafood industry.

7.1 Two migration reforms

We propose two major, but closely related, migration reforms.
First, we propose that a new Seafood Sector visa be introduced. This visa would:

- continue to allow foreign crew to come to New Zealand to work on fishing vessels; and
- allow migrants to be recruited to work onshore in processing roles and the aquaculture sector.

Secondly, we propose that the number of migrants allowed to work in the sector as a whole be capped. This would allow the government greater control over the level of migrant labour used in the sector.

Under these reforms, in future to employ a person who is neither a citizen nor a permanent resident in the New Zealand seafood sector:

- the worker must hold an appropriate visa permitting them to work in New Zealand;[55] and
- the employer will need to have permission to employ the person, which we have referred to as holding a permit.

7.2 A new Seafood Sector visa

We propose that a Seafood Sector visa be established that would allow a wider range of temporary migrants to work in the sector. This visa would replace the current Fishing Crew Work visa and could be used for both at sea workers and onshore processing workers.

When combined with our permit system (see sections 7.4 and 7.5 below), our proposal could be thought of as extending the RSE scheme to seafood processing.

7.2.1 At sea or onshore as well?

Currently, the Fishing Crew Work visa system only applies to at sea roles. It is a specific type of temporary visa designed to accommodate the needs of the sea-going part of the sector. Migrants with other types of visas can be employed on board fishing vessels, and the data shows that there have even been examples of working holidaymakers taking up such roles.

There is no specific visa for onshore roles. Migrants have to hold some sort of visa that gives them employment rights. The data suggests that most migrant workers in the seafood processing sub-sector are in New Zealand on Working Holiday or Student visas. We have been advised that prior to COVID-19, there were about 300 people on short-term visas working in the seafood processing sector. Data is not available on whether they were working in processing roles or undertaking maintenance work.

Including onshore processing roles within the system might appear to represent a considerable expansion of the number of people who could come to New Zealand to work in the sector, but we expect that they would displace other types of short-term migrant employment, especially of working holidaymakers and students.

Our principal reason for making this recommendation is that it recognises the reality of a shortage of potential employees in hard-to-staff roles and regions.

Other reasons include:

- many firms in the sector operate across sub-sectors, and a common visa type would increase their flexibility;
- the proposed approach will increase certainty for employers, as they would be more able to employ people for a longer duration (up to three years if the Essential Skills visa is used as a template), rather than relying on working holidaymakers and students;
- adapting some of the conditions that we propose, such as providing accommodation for migrants sponsored to come to New Zealand to fill processing roles, will increase the wellbeing of migrants; and
- a wide pool will have efficiency advantages and allow migrants to be employed where they can be

55 In addition to the proposed Seafood Sector visa, migrant workers could hold working holiday visas, student visas with work rights, Essential Skills visas (for some specialised roles), or any open visa with general work rights.

the most productive.

In the remainder of this section the analysis assumes that this new type of visa is in place.

We consider that adapting the successful features of the RSE scheme for the Seafood Sector visa has promise. These include:

- requiring employers to be pre-registered against a 'fit and proper' person test, that would consider aspects including compliance with health and safety requirements, labour laws, fisheries regulations and criminal record checks;[56]
- requiring employers to provide accommodation of a suitable standard for sponsored onshore employees entering New Zealand; and
- imposing explicit pastoral care requirements.

Pastoral care and accommodation requirements would not apply to other migrants employed in the sector, such as working holidaymakers and students.

Table 5 provides an outline of the main features of the Seafood Sector visa. Discussion of some of these features follows below.

Table 5: The Seafood Sector visa

Feature	Proposal	Comment
Coverage.	All of the seafood sector.	The visa would apply to both onshore and at sea roles. Specialist employees, like mechanics who come to New Zealand annually to service deepsea fishing vessels and who might need to come to New Zealand to install new equipment in, say open ocean aquaculture would be outside the regime.
Duration.	Up to three years.	The high-income band of the Essential Skills visa allows for visa to be issued for up to three years. We proposed using this as a template.
Ties to employers.	A migrant could work for any employer.	Unlike the Fishing Crew Work visa, employment will not be tied to a specific employer. This will introduce competition for migrant labour within the sector, which will improve efficiency.
Remuneration.	Not less than the market rate for New Zealand workers in the relevant occupation.	As per the Essential Skills visa.
Accommodation and pastoral care.	Employers would be required to provide accommodation for sponsored onshore roles and ensure that workers are supported while in New Zealand. Any employer who sponsors a worker on this type of visa will be responsible for their reparation at the end of their visa.[57]	The RSE scheme is the guide.[58]

7.2.2 Pay for migrants and local people should be comparable

Although not evident in the official data provided, during our sector engagement, we were told that some migrant workers in the sector are paid less than their domestic counterparts. This is especially the case at sea. As we noted in Section 5.5, like-for-like comparisons of employment conditions, need care, but that said, we are clear that in some cases, migrants are not paid the same as locals.

The terms of employment of migrants working anywhere in New Zealand are a combination of labour market conditions, employment regulation and the conditions of their visas.

Those visa conditions vary by visa type, as shown in Table 6.

56 To grant Recognised status, Immigration New Zealand checks that the employer (whether a natural person or company) is in a sound financial position, has good HR policies and practises, a commitment to training and hiring New Zealanders and a history of compliance with immigration and employment law.

57 Our policy objective for requiring repatriation is to mitigate the risk of migrants being stranded in New Zealand at the end of their employment. To integrate this provision with the ability of employees to change employers, we recommend that it be permissible for sponsoring employers to contract with their migrant staff to require the repatriation requirement to be transferred to any new employer.

58 An RSE employer must pay half of the return airfare for each worker. If the worker is deported or repatriated because they have breached their visa, the employer must pay MBIE up to $3000 per worker.

Table 6: Pay requirements in various classes of visa

Visa	Remuneration requirement
Fishing Crew.	Foreign crew must be paid at least the New Zealand minimum statutory hourly wage (currently $20.00 per hour) plus $2 per hour for all hours worked and never for less than 42 hours per week averaged throughout their engagement. (Ministers have added an additional requirement that the 615 migrants who have recently been granted access to New Zealand under a border exception must be paid $4 per hour more than the minimum wage).
Essential Skills.	Not less than the market rate for New Zealand workers in that occupation.
Work to Residence.	A minimum base salary of NZ$79,560 per annum.
RSE Scheme.	Employment agreement must specify a "per hour" rate for the work to be performed by the worker, that is consistent with the typical rate a New Zealand citizen or residence class visa holder worker is paid for the equivalent work, in the same period and region.
Working Holiday.	No specific requirement.

Source: Immigration New Zealand Operations Manual

A consistent theme in New Zealand's migration policy is that migration should not undercut the employment prospects of locals or create downward pressure on wage rates and other terms and conditions of employment. There has been considerable study locally and internationally on the issue of when and to what extent migrants compete with locals.[59]

Migrant crew on fishing vessels are likely to be experienced and would if they were New Zealand residents, be able to command a competitive market salary given their skills. We were told, for example, that operators prefer to engage fully trained and experienced crew,[60] with training costs paid for in their home country.

We consider that, in future, it should be an explicit condition of visas granted to migrants working in the seafood sector that, as in the RSE scheme, they be paid in a manner that is consistent with the typical rate a New Zealand citizen or residence class visa holder worker would be paid for a similar role. For at sea roles, this would include being paid under crew-share arrangements if appropriate and the crew member prefers that approach.[61]

7.2.3 New accommodation and pastoral care requirements

In consultation with the sector, we recommend that the Government introduce a clear code of practice on pastoral care that should apply to all employers of people sponsored to come to New Zealand on the proposed Seafood Sector visa. The purpose of the code should be to ensure that migrant workers in the sector have a positive experience in New Zealand, free from exploitation. This will not only be of benefit to the migrants but will also bolster the reputation of the industry and New Zealand as a migrant destination.[62]

As with the RSE scheme, the requirement to provide accommodation and pastoral care would not apply to people in New Zealand on other visas working in the sector, such as working holidaymakers or students.[63]

7.2.4 Dispense with labour market testing

We also see merit in dispensing with labour market testing for the Seafood Sector visa. Under the current

59 For a summary of this work, with a particular focus on temporary migration in the agriculture sector in New Zealand, see Fry and Wilson (2021).

60 Experience on a single vessel reduces health and safety risks and increases productivity and efficiency.

61 While currently people in New Zealand on a Fishing Crew Work visa are employed directly, while locals are often engaged as independent contractors paid on a crew-share basis, we were told of examples where Foreign Crew were remunerated under a Crew-share basis, with the employer topping-up wages with what is, in effect, a performance bonus.

62 Experience with the RSE scheme has shown that quality pastoral care is an important ingredient for its reported success, see Bailey (2015). While not an employment visa, we note that there are also extensive pastoral codes in place for international students. See the New Zealand Qualifications Authority's website at: https://www.nzqa.govt.nz/providers-partners/education-code-of-practice/

63 The general rules surrounding the RSE scheme simply state that employers must "make available appropriate pastoral care (including food and clothing and access to health services and suitable accommodation) to their non-New Zealand citizen or residence class visa holder workers at a reasonable cost during the period of the workers' RSE limited visas". Section WH1.5.5 of the Immigration New Zealand Operational Manual. The requirements attached to an Agreement to Recruit (ATR), which enables the employer to bring in a group of workers, are much more specific. The employer must submit a detailed plan on how they will address very specific pastoral care needs. See WH.10.1(f) of the Operational Manual.

Fishing Crew Work visa, employers are required to demonstrate effort in hiring locals. While common in other visa types and seen internationally, this system is unnecessary given the reality that migrant labour is likely to be an enduring feature of the New Zealand seafood sector. This sort of requirement is often justified as providing a check against employers seeking to employ low-cost labour. As we have discussed above, we do not generally see migrant fishing crew as being low cost. We are also proposing that migrants be engaged on comparable terms to locals. Our proposed permit-based system would become the mechanism by which employers are incentivised to employ local workers.

7.2.5 A development focus?

New Zealand currently works with Pacific Island countries and regional organisations to help them develop their fisheries. As part of this, a labour mobility fisheries pilot has been undertaken, supporting opportunities for graduates of the Pacific marine training centres to work on New Zealand fishing vessels. Therefore, the Government might consider including development objectives within the design of the Seafood Sector visa, for example, by giving priority to nationals of certain countries, as is the case with the RSE scheme.[64] We see this as more likely to apply to staff working in processing industries and inshore fisheries, although participation on deepsea vessels would not be precluded.

7.2.6 A new approach

We appreciate that our proposed visa would have some unique features. Foremost would be that it aggregates all classes of migrant workers in the seafood sector within it. The rest of the migration system is organised based on type of visas, not by sectors. While the RSE scheme applies only to the horticulture and viticulture sectors, it is not the only type of visa available for employment in those industries. What we are suggesting is that in the seafood sector, a sector-based approach is more appropriate. Whether such an approach might be suitable for other parts of the economy is outside our terms of reference.

7.3 A sector-wide cap

To address the Government's concerns about the use of migrant labour, we recommend the introduction of a sector-wide cap on migrant employment numbers.

There is currently no limit on the number of migrant workers that can be employed in the seafood sector.

Some visas have caps on the total number that can be issued in a period, while others do not.[65] The Fishing Crew Work visa does not have an overall cap on numbers, and individual employers can employ 100 percent migrant crew should they choose (subject to meeting the local hiring test).

7.3.1 The size of the cap

The data we presented in Section 5.2 shows that migrants currently fill an estimated 20 percent of positions in the seafood sector.

We were told repeatedly during our engagement that there is a significant shortage of workers across the whole sector that pre-dates the current COVID-19 border restrictions. Thus, the current number of migrants does not represent the full difference between supply and demand. We have taken this into account in framing our recommendations.

A figure of 20 percent of the sector workforce would be an appropriate starting point for setting a global cap.

Whatever number is agreed upon, we recommend that it always be set below demand to provide a clear incentive for employers to employ migrants in their highest value roles and to employ locals where possible. We do not propose that the Government reduce the cap by both the current shortfall and an additional amount to keep the number of permits 'short', as 'double discounting' in this manner would excessively constrain the sector's operations.

We are not proposing that the discount below demand would apply to individual deepsea vessels that currently employ 100 percent foreign crew. The discount would be to the sector-wide cap.

If the Government decides to introduce a cap on migrant numbers, it should arrange for a more

64 We note, however, that large numbers of migrants holding existing Fishing Crew Work visas do not come from countries with which New Zealand has a development relationship. If the Government decides to give priority to residents of Pacific countries, some type of grandfathering would allow people currently on a Fishing Crew Work visa to continue to come to New Zealand. An alternative would be to grandfather positions on specific vessels, which would allow an operator to continue to recruit migrants from existing origin countries.

65 The RSE scheme limits the number of visas that can be granted as a matter of policy. Increases in the cap are allocated via an administrative system across existing employers who request additional migrants and new entrants. Some working holiday schemes have caps on the number of visas that can be issued at any one time, but many are open-ended, and demand driven: all potential migrants who meet the criteria can receive a visa if they wish to apply. The Essential Skills visa is subject to a labour market test, but there is no global cap on numbers and individual employers can employ as many migrants as they wish.

thorough stocktake of the sector workforce. This should involve an enumeration of both the current number of people employed in the sector and the number of vacant roles. Section 7.4.3 below outlines how this stocktake could be undertaken as part of the initial allocation of permits.

There are two main options open to the Government in managing the cap through time. It could:

- periodically set the cap through administrative means, as is the case with the RSE scheme;[66] or
- use a formula-based approach that links the number of permits to changes in the overall level of employment in the sector. This percentage could be reduced or increased through time if desired.

We recommend the second approach, as it provides greater certainty and could automatically accommodate growth.[67]

7.4 A flexible permit system

We propose separating the right to work in New Zealand from the right to employ a migrant. This more flexible way of capping migrant numbers would operate in parallel with the visa requirement.[68] We have termed the right to employ a migrant a 'permit'.[69]

Our proposal would involve a two-step process:

- employers would need to hold sufficient permits to employ all the migrants they wish to engage at any one time; and
- employees would need to hold a visa that allowed them to work in New Zealand.

The following types of visas would be counted against a permit:

- the Seafood Sector visa (which would replace the current Fishing Crew Work visa and would also be available for processing workers – see section 7.2 above);
- open category work visas, for example, the Special Work visa issued to partners of other visa holders;
- Working Holiday visas; and
- Student visas.

People in New Zealand on an Essential Skills visa undertaking technical work in the sector, like specialised vessel maintenance or installing new aquaculture facilities, would be outside the permit system.[70]

7.4.1 A right to work versus a right to employ

Under New Zealand immigration law, visas grant non-citizens a right to enter, remain and in some cases work in New Zealand. Those rights attach to the individual.[71]

Some classes of visas include conditions that tie the right to work to an individual employer or even a particular place of work, like the current Fishing Crew Work visa and the RSE visa. Some visas also require an employer to meet and provide employees with certain conditions before a visa can be granted to a particular non-citizen. Again, the Fishing Crew Work visa is an example.

New Zealand employers are also free to employ people legally in New Zealand with general work rights, like permanent residents, students with work rights and working holidaymakers.

Visas can be thus thought of as both a right to enter New Zealand and work and a right to employ migrants.

66 The number of places in the RSE scheme is periodically reviewed by Cabinet and increased if that is considered appropriate. The number of places has increased significantly since the scheme was introduced on 30 April 2007, with the cap growing from 5,000 places to 14,400 in 2020/21. Immigration New Zealand had agreement in principle from Cabinet to grow the cap by a further 1,600 places in 2020/21, but it has been maintained at its 2019/20 level "due to the impact of COVID-19 on employment and economic conditions, and international travel" (Government of New Zealand (2019)).

67 The simplest way to operationalise this approach would be to set the cap for one year based on employment levels in the sector for the previous year. Provided the sector was not growing at a rapid pace, this is one way to keep the cap slightly below demand.

68 The Agreement to Recruit (ATR) provisions of the RSE scheme has similar features to what we are proposing.

69 The Fishing Crew Work visa currently involves elements of a right to employ and a right to enter. Employers need to seek permission to employ migrants through the Approval-in-Principal (AIP) system and once approval is granted, can seek to employ migrants who then apply for a visa.

70 Processing workers sponsored to come to New Zealand would henceforth only be permitted entry under the Seafood Sector visa, as is the case with the RSE scheme. Section WK3.1.5 of the Immigration New Zealand Operational Manual provides in relations to the recruitment of multiple workers: 'No approval in principle application for the recruitment of workers to plant, maintain, harvest or pack crops in the horticulture or viticulture industries will be approved under these instructions'. WK3.5(d) also prevents individual applicants for an Essential Skills visa from being granted a visa to undertake employment in these roles.

71 Other rights are granted by other legislation and policies, but flow from the grant of a visa. See, for example, Section 74 of the Electoral Act 1993 (right to vote), Section 7 of the Overseas investment Act (right to acquire land), Health and Disability Services Eligibility Direction 2011 (right to receive publicly funded health services) and Section 33 of the Education and Training Act 2020 (right free education at State schools).

7.4.2 How long should the permit last?

The seafood sector is capital intensive, both onshore and at sea, and thus having some certainty around the availability of the limited number of permits reduces the risk that valuable assets will be left idle. This suggests that any permits should be long-lived (maybe even perpetual).

One consequence of very long-lived permits is what happens should the Government decide that it wishes to reduce the number on issue. We defer consideration of this important question to the section below, where we discuss the process for allocating permits, since the principles involved are very similar.

7.4.3 The vexed question of allocation

We propose that the initial allocation of permits be based on historical employment patterns, but with the total number set at just below total demand.

Based on the experience here and overseas with the allocation of rights in permit-based environmental regulation, the system of allocation for incumbent employers of migrants is likely to be the subject of considerable debate.

Incumbents often express concerns that introducing a new requirement is essentially unfair and involves 'moving the goal post after the ball has been kicked'. Particular concerns are where, as in the case of the seafood sector, significant capital has been invested based on pre-existing rules, which here means no limit on the number of migrants who can be employed.[72] They often call for complete grandfathering of the status quo. Proponents of reform argue that this approach means perpetuating an undesirable situation.

Determining the socially optimal transitional rules is a Herculean task and one that we do not think the Government and the sector should embark upon.

A pragmatic approach is to acknowledge that new rules can be disruptive, but at the same time, if the status quo is undesirable, reform is required. Effort should be expended in designing a set of transitional rules that will see reform implemented as quickly as possible while avoiding disruptive change.

The proposal that permits be transferable provides important context here. The initial allocation is just that – a starting point. Immediately after the allocation, employers will have the ability to either increase or decrease the number of permits they hold, provided they can agree a transfer with other employers.

There are numerous options for allocating permits, including auctioning, selling for a fixed fee, balloting, and gifting. Auctioning has the advantage of ensuring that permits go to their highest social use. A fixed fee looks like a tax and would require the Government to determine an appropriate price. Gifting can infer windfall gains on recipients but has the benefits of simplicity and acceptance by the sector.

The real choice is likely to be between gifting to incumbents and selling at auction.

From an efficiency perspective, both methods affect whether an individual employer seeks to employ a migrant or a local.[73] The choice of mechanism often come down to issues of equity (is it fair to require people who may have made business decisions years ago to have to make an additional payment to continue what was, up until the imposition of the permit requirement an acceptable business model) and the need to achieve some measure of industry acceptance. Often unrepresented in these discussions, however, are potential new entrants into an industry. If a cap is binding and all permits are granted to incumbents, then anyone seeking to enter an industry will need to acquire permits from their potential commercial rivals.[74]

The choice does not need to be binary: incumbents could be given sufficient permits to cover a portion of their current operations and be required to buy the rest from the Crown.

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72 There is an extensive literature on the issue of transitional relief, both within environmental regulation and more generally. For a summary, see Revesz and Kong (2015). The traditional view was that transitional relief should be granted, because existing investors had made decisions based on existing rules and thus should be granted time to adjust to the new provisions. The more modern view is that transitional relief should not be granted, due to its effects on the incentives of potential investors to anticipate reforms that are desirable on social grounds.

73 This somewhat counter-intuitive result comes about from the ability to transfer permits. Even if an employer is given a permit for free, it will have value and will thus form part of their decision of whether to continue to employ a migrant or sell the permit and employ a local. For a discussion, see Hahn and Stavins (2011).

74 For a comprehensive treatment of the issue of fairness when it comes to legal rules, see Kaplow and Shavell (2001).

We certainly favour either gifting or sale over balloting or a fixed-fee approach.[75] If the Government puts more weight on not imposing an additional cost on incumbents, then gifting would likely be the preferred approach. If it is concerned with the treatment of new entrants, especially in the growing sub-sector of aquaculture, then sale should be favoured.

If gifting based on historical employment is used, then it will be important that the baseline for each employer be determined accurately. We propose that the Government require those employers wishing to employ migrants under the new system to submit audited[76] returns showing:

- the names of all migrants they have employed in the last five years;
- the type of visa on which they were employed;
- the duration of their employment; and
- their IRD number.

7.4.4 Implications for iwi settlement assets

One issue that would need to be addressed is whether the seafood and aquaculture settlements with iwi require the Crown to allocate a portion of any permits to Māori to allow them to employ migrants to fish their quota.

This is an important matter. We are, however, not experts on the terms of those settlements, and thus, very conscious that our ability to provide any recommendations is limited.

We acknowledge that the Crown has a clear obligation to deal with its Treaty partner in good faith whenever it is proposing reform on any matter that affects settlement rights. In those discussions, we would advise all parties to proceed on the basis that our proposals are directed at growing more ocean people and improving the wellbeing of all participants in the seafood sector. It is not our intention that any of our recommendations diminish the value of settlement assets.

7.5 Operation of the permit system

In this section, we outline how a system of permit-based rights to employ migrants might work. We have developed an outline of an approach that we consider can increase the efficiency of how the seafood sector operates, creates more certainty for employers and allow the Government more control over the number of migrants working in the sector. Further analysis of the options that we considered is in Appendix F.

Our overriding objective has been to propose a simple system that focuses on increasing the incentives on employers to engage migrants where this adds most value

7.5.1 The key elements of our proposed scheme

A summary of the key features of our scheme is set out in Table 7.

Table 7: A permit allocation system

Feature	Proposal	Comment
Domain of the system.	All of the seafood sector.	The system should apply to the whole sector, in part because some employers operate in all of the sub-sectors.
Types of employment.	Right to employ a migrant in any part of an employer's seafood operation.	An employer can employ a migrant covered by a permit on any vessel they operate or in any onshore role.

75 Balloting creates the potential for gaming, as has been evident with the US H-1B visa system, which allows access by skilled temporary migrants. Alessandra Casella and Adam Cox report that large employers like Alphabet apply for a sufficiently high multiple of the number of places they need to ensure they receive the required number. They also give examples of a single firm using subsidiaries to increase the chances of success (Casella and Cox (2018)). We do not favor a fixed fee because it is difficult to determine an appropriate fee structure.

76 Who would be a suitable auditor is a matter of detail that can be finalised during subsequent scheme design if the Government decide to proceed with this approach. At the very least, we would recommend that any incumbent financial auditor would be appropriate.

Feature	Proposal	Comment
Scope of permits.	A permit would not be required to employ a migrant in New Zealand on an Essential Skills visa.	Specialist employees, like mechanics who come to New Zealand annually to service deepsea fishing vessels and who might need to come to New Zealand to install new equipment in, e.g. open ocean aquaculture would be outside the regime. It is not our intention that people currently employed on a Fishing Crew Work visa be able to transfer to an Essential Skills visa. This may require consequential changes to the Essential Skills visa rules.[77]
Longevity of permits.	Permits would not expire.	If the Government of the day wanted to, in future, reduce the number of permits, it would need to buy them back.[78]
Nationality of permit holders.	No limit.	We would favour an open approach in this case, with participation in the New Zealand economy subject to general laws.
Qualification of permit holders.	A pre-qualification system would impose a 'fit and proper person' test, which would include compliance with health and safety and industry-specific regulations.	This enables the Government to set standards for being allowed to employ migrants in a consistent manner across the sector.
Number of permits.	The number of permits would initially be set based on historic employment levels, with new permits issued periodically, via auction, to accommodate growth in the sector. The number of new permits would be administratively set.	The intention would be that the overall number of permits would be kept below the level of demand to ensure that there is an economic incentive to employ locals. A key factor in this proposal is that it will accommodate desired growth in the aquaculture sub-sector without crowding out other employers.
Initial allocation.	Either gifting, based on verified historical practice,[79] or auctioning.	Gifting can confer windfall gains on recipients but has the benefit of simplicity and acceptance by the sector. A compromise might be a mix of auctioning (with any revenue recycled into industry training or sectoral promotion) and gifting.
New entrants.	Subsequent allocations to accommodate growth in the sector would be auctioned.	New entrants would need to compete with incumbents who might be seeking to grow their business.
Transfer.	Permits would be transferable.	An employer who is granted a permit either during initial allocation or as a new entrant should be allowed to transfer that permit to any other approved employer on whatever terms they mutually agree.
Recording of transfers.	No specific regulation of transfers Subject to normal commercial law.	An open-access central register of permits hould be established. We are agnostic on whether this should be operated by the government or a sector-wide body. The important point is that there be full transparency.

7.5.2 Permits should be transferable

Whatever initial allocation mechanism is ultimately used, we strongly support allowing permits to be transferred within the seafood sector[80] on mutually agreed terms. This will allow business decisions to be made about where best to use migrant labour within the sector. We also strongly support a wide industry coverage for permits, as this is more likely to facilitate permits being put to their highest social use. We would recommend against, for example, having specific categories of permits for deepsea, inshore or processing roles. We would most definitely recommend against a requirement that individual employers could only employ a limited proportion of migrants. This

77 Section WK4.5 of the Immigration New Zealand Operational Manual currently allows Essential Skills visas to be issued that require the holder to work in a specified industry, trade, occupation or profession.

78 We note that when initially introduced, the QMS system included provisions to require the Crown to buy back quota if it wished to reduce fishing effort. This system was replaced with the current arrangement where quota represent a share of the Total Allowable Catch, which the Minister sets to meet sustainability goals. Part of the reason for this change was that it reduced the financial cost to the Crown.

79 Using verified data of past practice is one way of overcoming the absence of accurate data about employment levels in the sector. Employers will have a clear incentive to accurately disclose their employment history as this allows them to receive more of a valuable right for free.

80 We do not see the need for special rules around the operation of the resultant market. The normal provisions of the Commerce Act that regulate the abuse of market power and anti-competitive behaviour should be sufficient.

would seriously constrain the businesses of these employers for little, if any, policy gain.

7.5.3 Worked examples

In Appendix G we present a series of examples of how our proposed system would work.

7.6 Increased training and promotion of the sector

Increasing the number of New Zealanders capable, willing, and able to take up roles in the sector will require increased training and better promotion. We recommend that the Government and industry work to encourage greater participation in the sector by promoting the training courses currently available and working to identify what gaps exist within these courses. We also recommend that the sector works with schools and education providers to increase awareness and knowledge of the sector.

We would encourage the sector to engage with newly formed Muka Tāngata – the People, Food and Fibre Workforce Development Council – as soon as possible to ensure that the specific needs of the sector are considered.

Our terms of reference do not extend to examining whether public funding of a training vessel or other training approaches would represent value for money. We recommend that the Government and industry investigate the viability of a dedicated training vessel to provide trainees at sea experience.

7.7 A whole-of-government view of the sector

We have heard through multiple channels that the Government does not promote the sector as a good place to work and that the lack of a clear Government position in respect of the performance of the sector and its future in New Zealand is a barrier to recruitment, especially into at sea roles. Continued proposals to place new and more stringent regulations on at sea operations were cited as evidence of a negative attitude. The way the seafood sector is talked about in schools and the impression this leaves on young New Zealanders was also raised as an issue.

The short timeframe in which we have been required to report has not allowed us to test these claims. We have also not had the ability to examine in detail the case for regulation and the content or tone of supporting material presented. How fishing might be taught in schools is also not something we have reviewed.

Acting in a manner that makes the sector attractive is a role for the industry and the people in it. It would also assist industry efforts to plan and attract new entrants into the seafood labour market if there was a consistent and actively promoted whole-of-government view of what the future holds for the sector.

We recommend that Ministers settle on a whole-of-government view of the future of the sector and promote that view broadly.

7.8 Process

We have several recommendations for the approach the Government should take as it considers and potentially works to implement our recommendations.

7.8.1 Working with the Treaty partner

We expressly recommend that the Crown consult fully and in good faith with its Treaty partner as it considers our recommendations.

7.8.2 Ongoing review

We recommend that the Government continually monitor developments in the sector's use of migrant labour and adjust the settings of either the proposed Seafood Sector visa or the permit system to accommodate changes in the sector over time.

7.8.3 Data collection

Robust workforce data should also be collected so that settings can be responsive to changing dynamics in the sector. We recommend that the Government collects better data on the sector workforce if it agrees to introduce a permit system with free allocation based on historical employment.

8 The Seafood Workforce Transition Plan

Our Terms of Reference ask us to consider the likely impact of the Seafood Workforce Transition Plan the sector has under development on the questions before the Inquiry.

We reviewed material prepared by officials on the Plan.

Seafood New Zealand, who are coordinating work on the Plan, provided us with two documents on the development of the Plan to date:

- Workforce Transition Plan: Review, dated 22 July 2021; and
- Workforce Transition Plan: Review Industry Presentation, dated August 2021.

The first document records the results of two workshops of industry participants that worked to refine a draft Workforce Transition Plan. The second document included some material from the first, but also included a draft High-Level Workforce Transition Plan and a Workforce Transition Plan – Action Matrix. Seafood New Zealand is still in the process of consulting on and finding resources and champions for the items proposed in the Plan. The documents provided were still in draft form, but likely signal the key areas the sector will focus on to improve efforts to attract New Zealand workers.

The material accords with much of our thinking. All the main issues have been identified, as have the likely decision-makers and stakeholders.

The Review document noted that participants identified a number of issues yet to be resolved over the course of the two workshops. They specifically noted that the industry expects consideration of these issues will be informed by the findings of our Inquiry.

Some of these issues are significant, including:

- defining what success looks like;
- identifying the apparent investment in equipment (e.g. new vessels) necessary to attract more entrants;
- confirming a collaborative attraction and recruitment plan across seafood companies; and
- gathering a view of the wider availability of labour in New Zealand.

The material provided sets out clearly the issues that will need to be addressed if the sector were required to employ fewer migrants.

The industry is still working on the details.

We have taken the commonality of issues between the draft Plan and our work as welcome confirmation that we are on the right track. There is nothing in the Plan that has made us rethink any of our conclusions and recommendations.

Likewise, we hope that our report will be helpful to industry as it continues to develop its Transition Plan. We acknowledge that some of our proposals, especially the sector-wide cap on migrants, add dimensions that were not within the initial scope of work on the Plan.

9 Conclusion

Given the reducing number of locals willing and able to go to sea, desired growth in aquaculture and seasonal peaks in processing, some level of migrant labour will inevitably be required in the seafood sector in Aotearoa New Zealand, if major reductions in production are to be avoided in the short term.

A system of transferable permits for employers that sits alongside visas has the potential to increase the productivity of the sector and ensure that the available labour is employed where it will earn the highest return.

Some of our proposals involve significant changes to how the seafood sector employs migrants.

Getting the details of the twin system of visas and permits will require a period of scheme design, which will need to draw on the skills of the sector, officials who advise on both migration and fisheries policy, Immigration New Zealand, as the administrators of New Zealand's immigration system and migration advisers. In doing so, we would encourage all players to remember that our proposals are a package. Any change to one element will need to consider the impacts on the rest of the system carefully.

Kia pai te haere, e ngā tāngata o Tangaroa.

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Appendix A: Terms of Reference

Terms of Reference: Ministerial Inquiry into the Use and Allocation of Migrant Labour in the Seafood Sector

1. Preamble

1.1 COVID-19 border restrictions have highlighted the seafood sector's vulnerability due to its reliance on migrant labour, and expedited work across the industry and within government to increase the participation rate of New Zealanders in the sector.

1.2 Some businesses in the sector have reduced their reliance on migrant workers since border restrictions were implemented. However, some deepsea vessels, in particular, remain 100 percent foreign-crewed; with instructions issued in a foreign language, and refit and maintenance work supported by migrant short-term visa holders in specialist roles. In recent times, there has also been an increasing reliance on short-term visa holders in processing roles across the sector.

1.3 Currently, some, but not all, of the sector say they have no choice but to use migrant labour or be unable to operate. The Government has an ambition to transition the sector to a principally New Zealand workforce, rather than exporting the labour value component of returns. Part of the answer will lie in technology, but this is largely a labour question.[81]

1.4 As part of its broader focus, the Government is currently working to improve New Zealand's immigration system to ensure it delivers better outcomes for communities and the economy and enables access to great job opportunities for New Zealanders.

1.5 This Ministerial Inquiry will assist the Government's work to understand how settings could be changed in the seafood sector to support the objectives of its wider immigration reform programme. There will need to be an economically sensible methodology to allocate the right to migrant labour in order to both drive the transition the Government is seeking and ensure workers who are engaged from overseas are allocated to the highest value outcomes.

2. Purpose and scope

2.1 The Minister for Oceans and Fisheries, Hon David Parker, (the Minister) is establishing a Ministerial Inquiry (the Inquiry) with the overall objective of reducing the sector's reliance on migrant labour and increasing the number of New Zealanders working in rewarding jobs in the sector.

2.2 The Inquiry will investigate the use and allocation of migrant labour in the seafood sector, with a view to establishing principles and mechanisms by which the rights to employ migrant labour could be allocated in the future on a reducing basis. The Inquiry is to consider, report, and make recommendations on this matter to the Minister.

2.3 The Inquiry will carry out a stocktake of the current state of the sector workforce, determine what a more resilient 'New Zealandised' seafood workforce could look like and deliver recommendations on how best to achieve this transition.

2.4 The Inquiry will seek, in particular, to answer the following key questions:

2.4.1 Which people (e.g. migrants and New Zealanders) are in which roles now in the sector and how are they remunerated?

2.4.2 How does labour supply and demand and profit maximisation impact on labour productivity and economic returns in the sector?

2.4.3 Is the cost of quota and/or accessing annual catch entitlement impacting on businesses' ability to fairly renumerate their workforces and adopt new labour-saving technologies?

2.4.4 What are the barriers to increasing the 'New Zealandisation' of the workforce?

2.4.5 What opportunities exist for technological solutions to workforce gaps in the sector?

2.4.6 How do wages compare across different roles in the seafood sector? Are people fairly remunerated for the work they do?

2.5 The Inquiry must also consider the likely impact of the Seafood Workforce Transition Plan the sector has under development on the questions before the Inquiry.

81 Deepsea fisheries presents a distinct challenge as the supply of capital equipment is often associated with the use of migrant labour.

2.6 The following commercial seafood sector activities are covered in the scope of the Inquiry:

2.6.1 deepsea fishing;

2.6.2 inshore fishing;

2.6.3 aquaculture activities; and

2.6.4 seafood processing.

2.7 The Inquiry will make recommendations on:

2.7.1 the possible future composition of the seafood workforce;

2.7.2 how the right to employ migrant labour could be allocated across the sector to incentivise a transition towards a 'New Zealandisation' of the seafood sector;

2.7.3 how an allocation mechanism could be implemented, and on what timeframe; and

2.7.4 what, if any, support would be required for the sector to achieve this transition.

2.8 The following matters are out of scope of the Inquiry:

2.8.1 changes to the quota management system (under the Fisheries Act 1996);

2.8.2 any change to economy-wide minimum wage settings;

2.8.3 reforms of health and safety law; and

2.8.4 the Government's wider Reform of Vocational Education (RoVE).

3. Inquiry establishment and panel

3.1 The Inquiry is established by the Minister, with the agreement of the Prime Minister.

3.2 Appointments to the Inquiry panel will proceed through the Cabinet appointments process and fees will be set in accordance with the Cabinet Fees Framework. Should a panel member need to be replaced over the life of the Inquiry, the Minister will follow the Cabinet appointments process to appoint new panel members.

3.3 Peter Wilson is the Chair of the Inquiry. The other panel members are Greg Johansson and Julie Fry.

3.4 The Inquiry will commence on 28 June 2021.

4. Principles and process

4.1 The Inquiry will discharge its functions in accordance with the provision and principles of these terms of reference. The Inquiry has the power to determine its own procedure, unless otherwise guided by terms of reference.

4.2 The Inquiry will operate according to principles that include:

4.2.1 ensuring timely production of documents and that information received is recorded appropriately and treated confidentially, noting that Official Information Act 1982 requirements still apply;

4.2.2 ensuring efficiency, transparency, and accountability in its use of public funds; and

4.2.3 acting in an independent, impartial and fair way.

4.3 It is not the purpose of this Inquiry to investigate any particular situation or incident. If the Inquiry obtains specific information it believes should be investigated by a relevant authority, it will be forwarded to the relevant authority for its consideration. Inclusion of this information in the report to the Minister will be at the discretion of the Inquiry panel.

4.4 Inquiry members will only provide media comment following consultation with the Minister.

4.5 Conflicts of interest should be declared and managed in line with the guidelines provided by the Office of the Auditor General.

5. Engagement

5.1 The panel members conducting the Inquiry will meet with the Minister to provide status updates at least monthly, at times to be mutually agreed. These meetings will provide an opportunity to share early insight on the direction and findings of the Inquiry.

5.2 The Inquiry will engage with Māori, Te Ohu Kaimoana, Seafood NZ, other key seafood sector stakeholders, and central government representatives to gather information, seek required input into their work and request feedback on the Inquiry's draft report.

5.3 The engagement process will be robust throughout the duration of the Inquiry, so that the outcomes of the Inquiry can be enduring beyond the current parliamentary term.

6. Findings

6.1 The inquiry will report its findings to the Minister.

6.2 The Government will welcome the work of the Inquiry but will not be pre-committed to the implementation of its findings. The Government will respond to the findings of the Inquiry in due course, following engagement with iwi and sector representatives, if required.

7. Key dates:

7.1 31 August 2021 – an interim report presented to the Minister signalling the probable direction of the inquiry and key next steps.

7.2 30 September 2021 – draft report and recommendations issued for consultation with key sector stakeholders, including Seafood New Zealand and Te Ohu Kaimoana.

7.3 29 October 2021 – Inquiry presents final report to the Minister.

8. Operational matters

8.1 The Inquiry will be supported by a secretariat provided by the Ministry for Primary Industries (MPI), as required. The support will be consistent to that of inquiries conducted under the Inquiries Act 2013.

8.2 The Inquiry must undertake regular financial, non-financial and resource planning and reporting consistent with public sector standards and timeframes.

Appendix B: Recommendations

This appendix sets out the package of reforms we have proposed in the form of concise recommendations. When considering possible changes to one recommendation, we encourage readers to consider whether consequential changes would be required to other aspects of our package.

Core recommendation

Recommendation 1

The Panel recommends the Government increase the certainty and predictability of migrant flows into the seafood sector in exchange for constraining the number of migrants employed.

Migration Reforms (section 7.1 - 7.5)

Recommendation 2 – A new Seafood Sector visa

The Panel recommends the Government create a new Seafood Sector visa that applies to onshore processing, aquaculture support services and at sea roles currently covered by the Foreign Crew Work visa.

High-level details of the visa and its provisions are in Table 8.

Table 8: The Seafood Sector visa

Feature	Proposal
Coverage.	All of the Seafood Sector.
Duration.	Up to three years.
Ties to employers.	A migrant could work for any employer that holds a permit.
Remuneration.	Not less than the market rate for New Zealand workers in the relevant occupation.
Accommodation and pastoral care.	Employers would be required to provide accommodation for sponsored onshore roles and ensure that workers are supported while in New Zealand. Any employer who sponsors a worker on this type of visa will be responsible for their return home at the end of their visa. A code of pastoral care be introduced for migrant workers in the sector.

Recommendation 3 – A sector-wide cap

The Panel recommends a sector-wide cap on migrant employment numbers be introduced, operationalised via a permit-based system.

Recommendation 4 – A permit-based system

The Panel recommends that a permit-based system:

- allocate the right to employ a migrant in parallel with the visa requirement;
- apply to migrants employed on Seafood Sector visas, Working Holiday visas, other open work right visas and Student visas; and
- not apply to the employment of migrants on Essential Skills visas.

Education and training (section 7.6)

Recommendation 5

The Panel recommends that the Government and industry work to encourage greater participation in the sector by promoting the training courses currently available and working to identify what gaps exist within these courses.

Recommendation 6

The Panel recommends that the sector works with schools and education providers to increase awareness and knowledge of the sector.

Recommendation 7

The Panel recommends that the Government and industry investigate the viability of a dedicated training vessel to provide trainees at sea experience.

A whole-of-government view of the sector (section 7.7)

Recommendation 8

The Panel recommends that Ministers settle on a whole-of-government view of the future of the sector and promote that view broadly.

Process (section 7.8)

Recommendation 9 – Working with the Treaty partner

The Panel recommends that the Crown consult fully and in good faith with its Treaty partner as it considers our recommendations.

Recommendation 10 – Ongoing review

The Panel recommends that the Government continually monitor developments in the sector's use of migrant labour and adjust the settings of either the proposed Seafood Sector visa or the permit system to accommodate changes in the sector over time.

Recommendation 11 – Data collection

The Panel recommends that the Government collect better data on the sector workforce, especially if it agrees to introduce a permit system with free allocation based on historical employment.

Appendix C: List of submitters

The 41 submitters (in-person, written submissions and completed data sheet) are listed in Table 9 below. In addition, we also received 117 responses to our anonymous online survey.

Table 9: List of submitters

#	Name	Type	In-person	Written submission	Completed data sheet	Written submission on the draft report
1	Andy Smith, A P Smith Fishing Consultancy	Individual		✓		
2	Aquaculture New Zealand Limited	Industry Group	✓	✓		✓
3	E Tū	Union	✓	✓		
4	Federation of Commercial Fishers	Industry Group	✓			
5	Fisheries Inshore New Zealand	Industry Group				✓
6	MPI & Fisheries New Zealand	Government Department	✓			
7	Guard Safety	Other	✓			
8	Independent Fisheries	Seafood Company	✓		✓	✓
9	Iwi Collective Partnership and Nga Tapuwae o Māui	Iwi Organisations	✓	✓		
10	JAICO Ltd and Don Wong New Zealand	Seafood Companies	✓	✓		✓
11	KONO	Seafood Company	✓			
12	Leigh Fisheries	Seafood Company			✓	
13	Maritime NZ	Government Department	✓			
14	Maruha (NZ) Limited	Seafood Company	✓	✓	✓	✓
15	Ministry of Business, Innovation and Employment	Government Department	✓			
16	Ministry of Education	Government Department				✓
17	Ministry of Foreign Affairs and Trade	Government Department	✓	✓		
18	Moana New Zealand	Seafood Company	✓		✓	✓
19	New Zealand King Salmon	Seafood Company			✓	
20	North Island Mussels Limited (NIML)	Seafood Company	✓	✓		
21	NZ Fishing Industry Guild	Industry Group	✓			
22	New Zealand Council of Trade Unions	Union	✓			
23	O P Columbia	Seafood Company	✓			
24	Okains Bay Seafood	Seafood Company	✓			
25	Pacific Networks Limited	Education Organisation	✓			✓
26	Pegasus Fishing	Seafood Company	✓			

#	Name	Type	In-person	Written submission	Completed data sheet	Written submission on the draft report
27	Sanford	Seafood Company	✓	✓	✓	✓
28	Seafood New Zealand	Industry Group	✓			✓
29	Sealord Group	Seafood Company	✓	✓	✓	✓
30	Solander Group	Seafood Company	✓	✓		✓
31	Ocean Fisheries Ltd/ Stark Bros	Seafood Company	✓	✓		
32	Talley's Group	Seafood Company	✓		✓	✓
33	Te Ohu Kaimoana	Iwi Organisation	✓			
34	Te Ohu Tiaki o Rangitāne te Ika a Māui Trust	Iwi Organisation	✓	✓		
35	Te Puni Kōkiri	Government Department	✓			
36	Te Pūtea Whakatupu Trust	Education Organisation	✓			
37	The Change Office	Other	✓			
38	United Fisheries	Seafood Company			✓	
39	Vela Fishing Group	Seafood Company	✓	✓		✓
40	Westfleet Fishing	Seafood Company	✓		✓	
41	Westport Deepsea Fishing School	Education Organisation	✓	✓		

Appendix D: Specific questions in our Terms of Reference

Our terms of reference include a number of specific questions. Where they are addressed throughout the main body of our report, we record this below. Others are answered here.

Which people (e.g. migrants and New Zealanders) are in which roles now in the sector and how are they remunerated?

This question is answered in the section on our stocktake of sector employment (Section 5) and in Appendix E.

How does labour supply and demand and profit maximisation impact on labour productivity and economic returns in the sector?

Answering this question quantitively would require data on the sector's economic performance at a very granular level and access to detailed financial information of firms and then using that material to undertake detailed analysis.

We did not have the necessary data or time required to undertake this degree of work.

The Productivity Commission or the Commerce Commission would be the ideal entities to undertake this sort of work if it were a priority for the Government. We note, however, that the small size of the sector might not justify the effort involved.

We did receive some qualitative information from submitters.

All submitters agreed that labour supply in the sector, and the economy more generally, is currently constrained. Several inshore fishers reported that they have only started using migrant labour in the last 10 years or so and, prior to that, used only New Zealand crew.

Submitters gave examples of productivity being enhanced by having experienced crew who were familiar with the vessel and fishing conditions. Examples were also provided where productivity was negatively impacted by working holidaymakers, who had become proficient through working on board having to leave when their visa expired.

Is the cost of quota and/or accessing annual catch entitlement impacting on businesses' ability to fairly renumerate their workforces and adopt new labour-saving technologies?

Answering this question quantitively would again require data on the sector's economic performance at a very granular level and access to detailed financial information of firms.

Submitters did not directly address this question, although several inshore fishers and other operators who have joined the sector since the QMS was introduced expressed concern about the current dynamics in the sector regarding the corporate and investor ownership of quota and stressed that, if no one is catching fish, quota has no value. Several deepsea companies advised that there is no alternative capacity to catch the annual catch entitlement (ACE) their vessels do, and without their continued operation, the value of quota for certain stocks will significantly diminish.

What are the barriers to increasing the 'New Zealandisation' of the workforce?

This issue is addressed in Section 6.3.

Submitters provided a full range of responses on ways to attract more New Zealanders to the sector and also on the barriers to increasing the numbers of New Zealanders in the workforce. The barriers identified are varied, with some specific to deepsea operations, and others specific to onshore operations and processing.

Accommodation and transportation

Some submitters noted the difficulty in finding suitable accommodation as an impediment to finding workers. For example, one submitter wrote that in Nelson, there is a lack of rental properties, and available properties are either unsuitable or outside of the price range for their workers. Another noted that there are no public transport links to their site in Havelock, and limited housing options locally. A third gave an example of many of their staff living in South Auckland but commuting to central Auckland.

Deepsea submitters noted that because their staff live onboard the vessels, they do not require accommodation onshore for their workers.

Low unemployment rate

Several submitters noted that part of the issue of finding New Zealand workers is the current low unemployment rate. The pool of unemployed people is relatively small, and multiple sectors are vying for the same workers. Submitters noted that they work closely with Work and Income New Zealand (WINZ) but that many of the people referred to them from WINZ are unsuitable either because they lack qualifications, fail drug and alcohol tests or are unreliable. People may also be unemployed due to reasons such as sickness or disabilities which can preclude work within the sector.

Ageing staff profile

Submitters noted that the seafood sector has an ageing staff profile and that firms are facing the prospect of having to recruit new employees to replace an increasing number of retirees.

Sector reputation

Submitters noted that the industry's reputation was a negative factor in attracting New Zealanders, particularly with younger people. They noted that there is a narrative that the sector doesn't fish sustainably and doesn't consider environmental concerns.

Lack of awareness of the sector

Some submitters noted that there is a lack of awareness of the sector generally and as a desirable and profitable career option with clear progression opportunities, particularly at high school level, but also earlier. This lack of awareness means that high school students are highly unlikely to pursue a career in the seafood sector.

Seasonal nature of work

Several submitters noted that the seasonality of some of the work within the sector is a challenge. Workers generally want either full-time roles or year-round part-time roles. The seasonal nature of roles is attractive to those seeking short term employment, such as Working Holiday visa holders or students, but is less appealing to New Zealanders unless the role can be paired with other work for the off season.

For example, the onshore hoki processing season is 18 weeks long which is not attractive to people looking for full-time employment.

Challenges in training for deepsea

Deepsea submitters noted that it is challenging to train new crew to work on deepsea fishing vessels. These vessels operate in extreme conditions where safety is paramount, and crew need to be experienced in order to operate safely. They note that even entry level positions on these vessels need a base level of skills and experience at sea. There are currently no training vessels in New Zealand, which limit how and when prospective crew can gain sufficient experience and time at sea to operate safely onboard a deepsea vessel.

One submitter noted "there is limited ability for employers to train crew on active vessels given the conditions at sea and the Health and Safety at Work Act 2015."

Though several submitters noted that they are working with the Westport Deepsea Fishing School, it is still a challenge to find suitable candidates.

Viability of New Zealand-based training

Several submitters noted that the seafood sector is quite small and questioned the viability of having dedicated training facilities. For example, one submitter noted that there is only one vessel that processes "surimi on board for part of the year. This is highly specialised niche work that requires years of experience. The training for this type of work is not available in New Zealand, and is unlikely to be developed given there would only be 40 possible roles available. The cost of implementing such training would far outweigh any benefit of training for such a limited number of roles.

Nature of the work

Submitters noted that the perception of the nature of the work is a big factor in New Zealanders being reluctant to work in the sector. They note that younger people find at sea work unattractive because of the length of time at sea and the separation from whānau and friends. Connectivity at sea has improved significantly as communications technology improves.

The long hours, physical nature of the work and safety concerns were also factors.

They also note that compatible personalities are important because vessels are often at sea for long periods of time and require crew to coexist in tight quarters.

Onshore submitters noted the physical nature of the work, and the conditions and hours were deterrents. For example, processing work is often done in shifts which is unattractive to many, particularly those with young children as it is challenging to find and pay for childcare. Submitters provided examples of changes they were making to working conditions to attract people who are only available for certain hours, for instance, increasing rates and setting up shifts during school hours.

What opportunities exist for technological solutions to workforce gaps in the sector?

We have addressed this question extensively in the main body of our report.

Submitters noted that while there are some opportunities for technological innovation, this will not necessarily reduce the number of workers needed in the sector but might change the nature of the work and the skills required. They noted that if the sector was to use more technology then the workers would increasingly need engineering, mechanical or computer skills or a combination of these.

Submitters also noted a number of factors that pose challenges for either developing or implementing technological innovations in the New Zealand context.

Adapting technology to New Zealand species

Submitters noted that because New Zealand fishes or farms some unique species, automation developed overseas cannot necessarily be applied 'off the shelf' and may require expensive and time-consuming modifications.

For example, there is automation technology in use in Norway for salmon, but this would need to be adapted for New Zealand salmon as they have a different bone structure. Submitters were not averse to adapting these technologies but noted that there would be more incentive if there were financial support such as an innovation fund.

Existing technology

Several submitters noted that they are already looking to use technological solutions where they can such as automatic mussel opening machines, and mussel seeding and harvesting. One submitter noted that the "oyster industry is in the early stages of transitioning to semi-automated growing infrastructure" and that for salmon there are "significant opportunities to automate aspects of the farming and processing systems. For example, modern land-based recirculating hatchery and nursery systems to rear juvenile fish are highly automated in terms of water quality monitoring, feeding, and maintenance. At existing inshore sites, many farmers have invested in semi-automated feeding and remotely operated fish monitoring systems. In more exposed sites at sea, salmon farms could be fed remotely (as they are in Tasmania)."

Several companies indicated that they currently use automated mussel-openers but pointed out that these generally do not decrease the need for labour – instead, they allow for more product to be processed, which allows people to be reassigned to packing the product. Using this technology is also somewhat dependent on the mussel farms themselves and the conditions under which they are raising the mussels. In some areas the practice of seeding results in mussels that are very consistent in size, allowing for greater use of automation.

Single- or multi-species

Several submitters noted that the nature of fishing in New Zealand does not lend itself well to more automation onboard vessels. New Zealand vessels tend to fish more than one species and it would be prohibitively difficult and costly to design machinery that could both process multiple species and fit onto ships.

While a level of automation exists on trawlers, this cannot be retrofitted onto older, smaller trawlers.

How do wages compare across different roles in the seafood sector? Are people fairly remunerated for the work they do?

This question is addressed in Section 5 and Appendix E.

Appendix E: Stocktake of employment

Remuneration

Comparisons with minimum, median and living wage

Stats NZ publishes quarterly labour market statistics drawn from the Household Labour Force Survey – Income data.

As a point of comparison for wages in the seafood sector, median hourly earnings from wages and salaries for the June 2021 quarter was $27.76 across the New Zealand economy, annualised to $57,740 per year assuming a 40 hour work week and full-time employment.

The minimum wage in New Zealand is currently $20.00 per hour. This means the lowest anyone in New Zealand can legally be paid is $41,600 per year for those who work 40 hours a week year round.

The Living Wage is supported by several community and union groups and businesses in New Zealand. The rate is currently $22.75 per hour or $47,320 per year if working 40 hours per week, and can be used as another point of reference, if desired.

Workers are employed in the seafood sector under a variety of contracts, paid under different wage models, and work non-standard hours. A direct comparison with the median wage over a year may not be appropriate and other factors should be considered.

Methodology

In the following tables the average gross pre-tax earnings are a simple extrapolation from survey respondents based on each respondent's estimate and are not weighted by the number of people in each role.

The New Zealand median salary has been grossed up by using the current rate of $27.76 per hour x a standard 40 hour week x 52 weeks.

Total sector average earnings for large firms

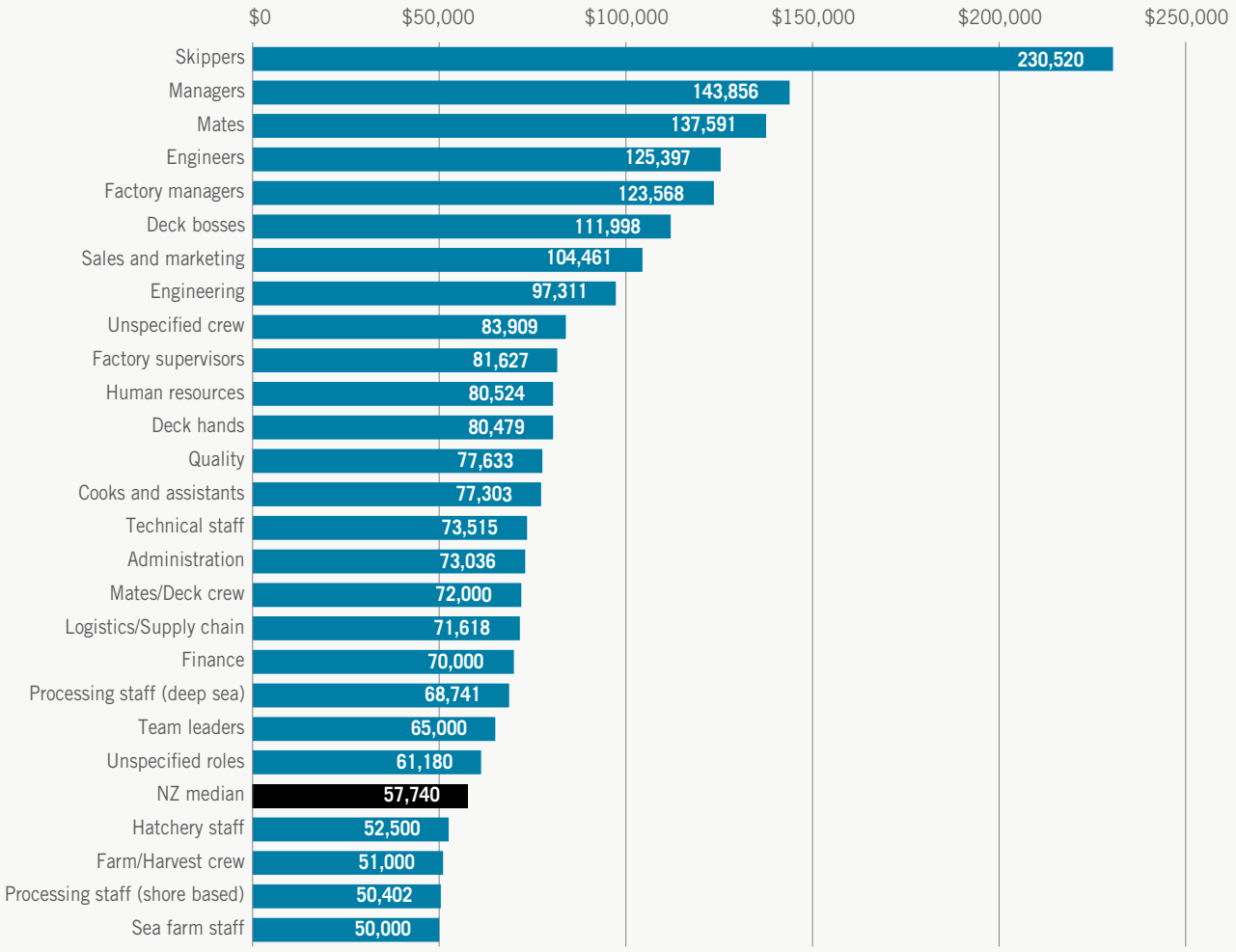
Figure 10 outlines the average gross earnings by role across the ten companies that responded to our information request. These ten companies employ approximately 60 percent of the total seafood sector workforce and are a representative cross section of the four seafood sub-sectors.

On average, skippers are remunerated at much higher levels than other roles in the sector but they also have more extensive training and experience. On-water aquaculture roles make up three of the four lowest remunerated roles and deepsea roles consistently rank in the top 50 percent for pay. Onshore processing staff are also amongst the lowest paid. Processing workers on deepsea vessels get paid approximately 35 percent more than those working in shore-based processing facilities.

All but four roles covered in the aggregated total seafood workforce from the comprehensive data request are paid, on average, above the national median wage ($57,740 per year).

We now examine the available information on wages in each of the four sub-sectors.

Figure 10: Total seafood sector earnings: large firms



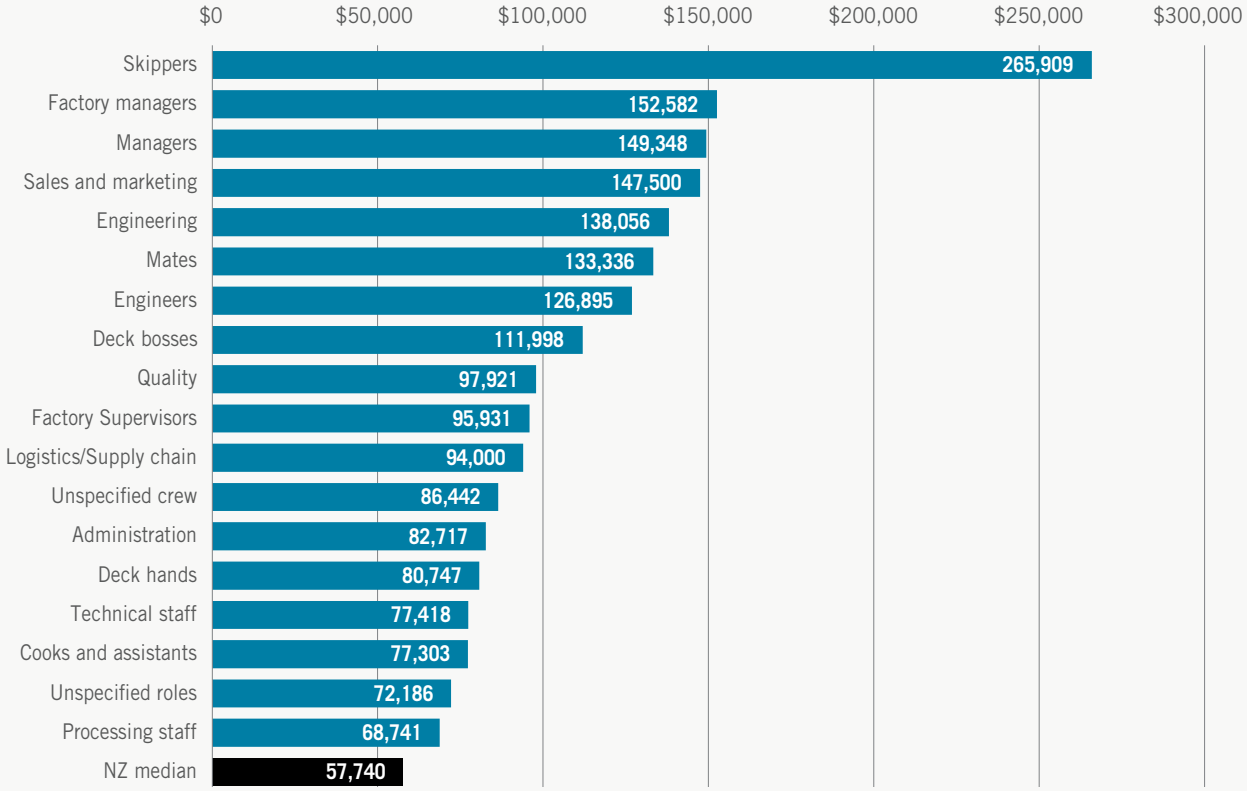
Source: Survey of large seafood industry firms

Wages in the deepsea fishing sub-sector

Remuneration information specific to the deepsea fishing sub-sector can be found in Figure 11. The comprehensive request data covered 2,149 deepsea workers out of an estimated total of approximately 2,800.[82]

According to the data provided by large employers, the deepsea sub-sector employs the greatest percentage of migrant workers of all the sub-sectors examined as part of this Inquiry and also appears to be the most remunerative. Many migrants working in the deepsea sector have entered New Zealand on Fishing Crew Work visas, which are relatively easy to track in official statistics. We are reasonably confident in the accuracy of this data.

Figure 11: Total deepsea sub-sector earnings: large firms



Source: Survey of large seafood industry firms

82 The 2,800 figure is estimated using official statistics as set out in Tables 3 and 4 in body of the report.

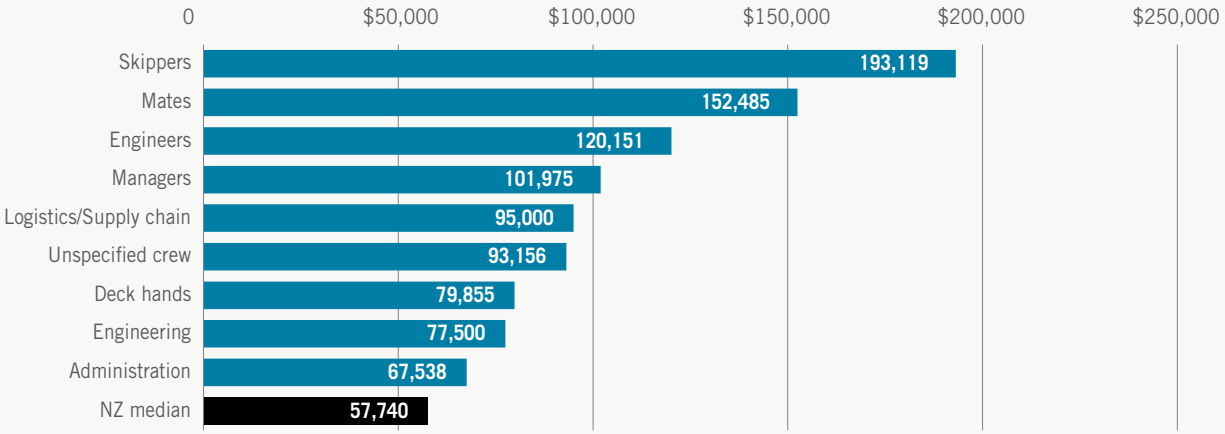
Wages in the inshore fishing sub-sector

Remuneration information for the inshore fishing sub-sector can be found in Figure 12. The comprehensive request data covered 119 inshore fishing workers out of a total of 1,170 estimated using official statistics. This data was provided by the largest companies in the sector that primarily contract inshore fishers. Given the small, skewed sample, we do not expect this data to reflect patterns in the wider inshore sector accurately.

Inshore fishing employers also provided remuneration data for 209 workers as part of the online survey. Smaller fishing companies or owner-operators largely provided the inshore sub-sector data collected in the survey. The data provided seems to show lower pay brackets than indicated in the comprehensive information request.[83]

The data suggests that roles in inshore fishing tend to pay higher than either the aquaculture or shore-based processing sub-sectors.

Figure 12: Total inshore sub-sector earnings: large firms



Source: Survey of large seafood industry firms

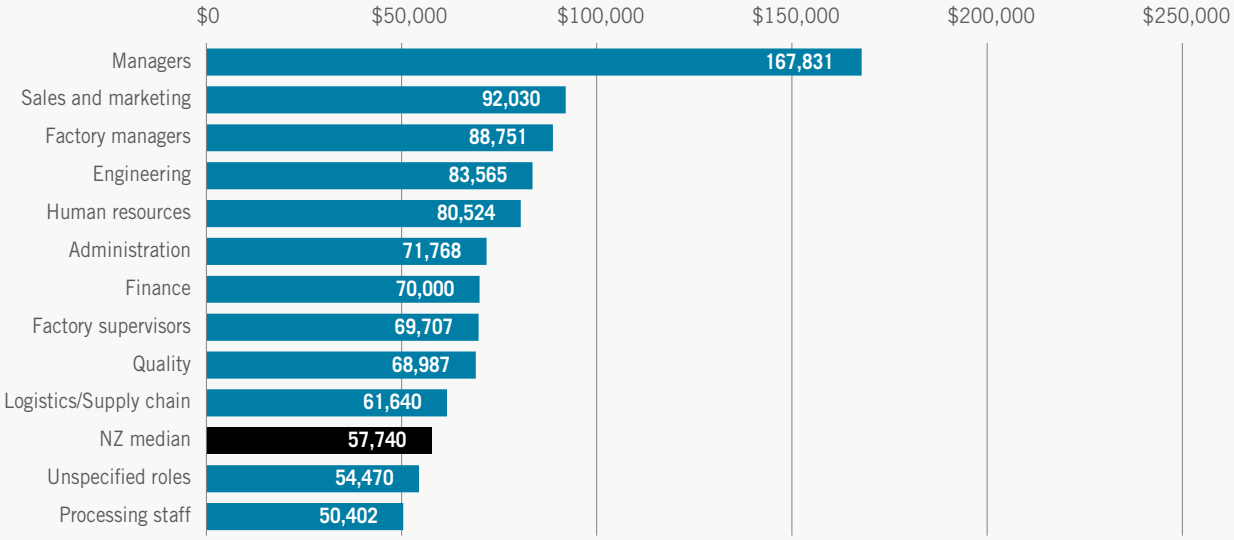
83 Data on hours worked is not available for this sample, but is available for the comprehensive information request.

Wages in the shore-based processing sub-sector

Remuneration information for the shore-based processing sub-sector can be found in Figure 13. The comprehensive request data covered 3,053 out of an estimated total of 5,800 shore-based processing workers.

Based on data provided by large seafood industry firms, the vast majority of workers in the shore-based processing sub-sector are 'processing staff' who are paid the lowest average wage in the sub-sector, below the national median wage. However, shore-based processing is one of the harder sub-sectors to source data on. Working holiday visa holders, who are more prevalent in this sub-sector, are harder to track in official data as they have open work rights and regularly change employer. We also obtained very few results from shore-based employers in our online survey. The limited number of operators in the sample may influence the accuracy of these results.

Figure 13: Total shore-based processing sub-sector earnings



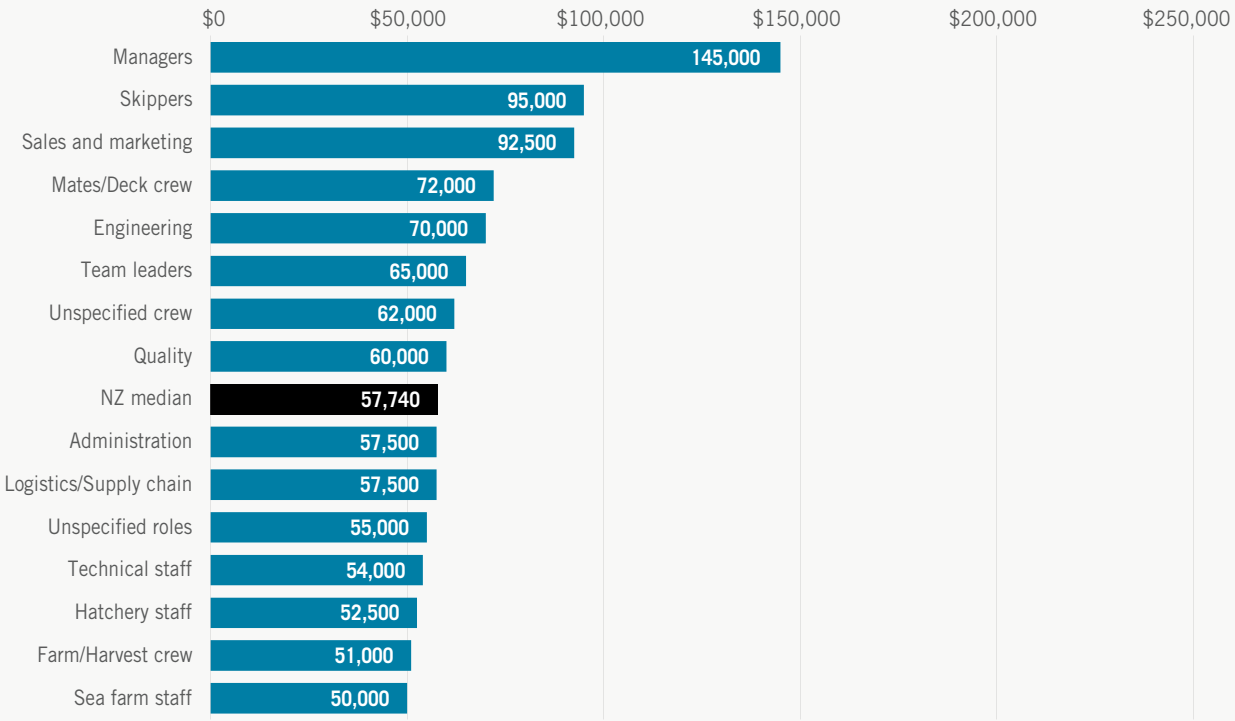
Source: Survey of large seafood industry firms

Wages in aquaculture sub-sector

The comprehensive request data covered 458 aquaculture workers out of an estimated total of 715, and the remuneration data they provided is in Figure 14.

Aquaculture is the smallest sub-sector covered in the Inquiry and also pays the lowest on average, although people work in a wider range of roles than in the shore-based processing sub-sector. Again, the limited number of operators in the sample may influence the accuracy of these results.

Figure 14: Total aquaculture sub-sector earnings: large firms



Source: Survey of large seafood industry firms

Factors that affect remuneration

As part of the comprehensive information request, we also sought data from companies on other factors that affect how we understand remuneration.

Days worked per year

We know that the hours worked in the seafood sector, in particular for at sea roles, are very different to those worked in other parts of the economy. Many people we engaged with referred to fishing as 'more a lifestyle than a job'.

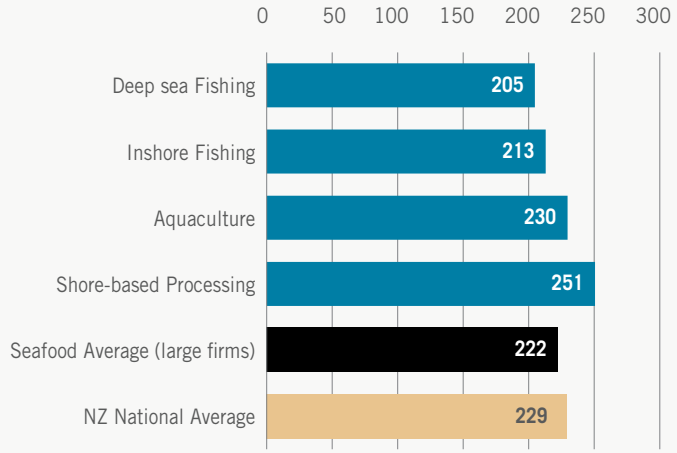
The nature of fishing means that trips can last weeks – as long as it takes to get to specific areas to fish, catch enough to be profitable, and steam back to port.

Contracts for fishing workers vary and trips range from 1 day to 6 weeks at sea, working from 6 hours on, 6 hours off to 12 hours on, 12 hours off.

Because of this, it can be hard to compare remuneration across different seafood sector roles with roles where people work more regular hours.

Figure 15 outlines the days worked per year per sub-sector as gathered through the comprehensive information request. To the extent that we can draw conclusions given the caveats outlined above, it appears that employees in the fishing sector work considerably fewer days than the average New Zealander. In contrast, people employed in shore-based processing roles work significantly more.

Figure 15: Average days per year worked in sub-sectors

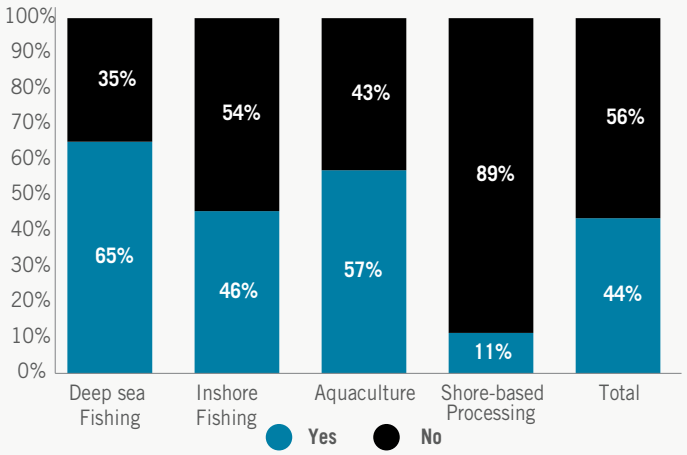


Source: Survey of large seafood industry firms

Qualification requirements

Overall, 44 percent of the roles covered in the comprehensive information request required workers to hold a qualification. This was highest in the deepsea sub-sector (65 percent) and lowest in onshore processing (11 percent). This accords with our understanding of the skills required for the various roles in the sector and the different roles that on-the-job training and formal qualifications play for some tasks.

Figure 16: Is a qualification required to hold this role?



Source: Survey of large seafood industry firms

The pool of labour

The seafood sector is concentrated in the regions. The pools of available labour are often small, and there is competition from other sectors including agriculture, horticulture, and viticulture for seasonal roles. The supply of accommodation is limited, transport and travel time costs are a factor in attracting people to work.

A common theme in our discussions was that employers saw the only available pool of labour as the unemployed, many of whom are unsuitable (due to drug and alcohol dependence, mental health issues, or just not being cut out for hard physical work or being at sea). We fully appreciate that the New Zealand labour market is currently exceedingly tight, and employers in all sectors and regions are reporting extreme difficulty in attracting staff.

Actively poaching from other seafood companies is deemed unacceptable in the seafood sector but frequently happens through various methods. However, we did receive suggestions from some in the industry that there is a wider pool that could be tapped. We do question, therefore, whether the available pool of labour is small. The total labour force in New Zealand is 2.8 million people, some of whom might be attracted to a role in the seafood sector on the right terms.[84]

Demographics

Gender

The more sea-based employment sub-sectors have a higher proportion of male workers.

Conversely, the primarily land-based processing sub-sector has a higher proportion of female workers than the other sub-sectors.

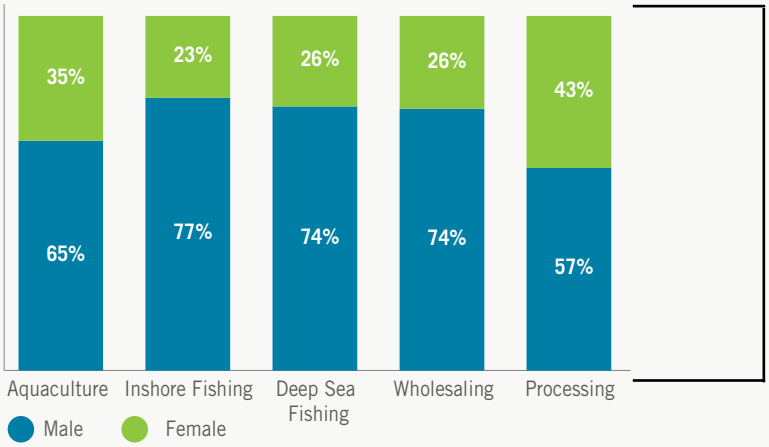
The overall high-level gender ratio of 35:65 (female: male) for the seafood sector is in line with the gender mix across all primary industries.

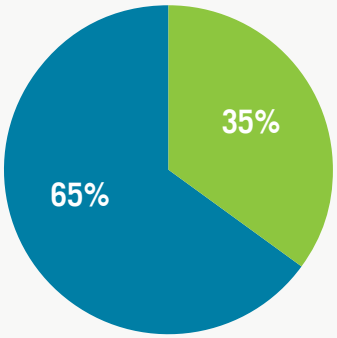
Age

The seafood sector workforce skews towards older workers. Around 39 percent of seafood sector workers are over 50 years of age, and around 19 percent are very near or over retirement age. There are very few young people in the industry, with only 6 percent of the seafood sector workforce aged under 25.

84 While currently not an option due to COVID-19 border restrictions, we also note that Australians have a general right to work in New Zealand visa free. The Australian Government reports that the Australian fisheries and aquaculture sector employed about 17,000 people in 2019-2020 (Australian Department of Agriculture, Water and the Environment (2021)).

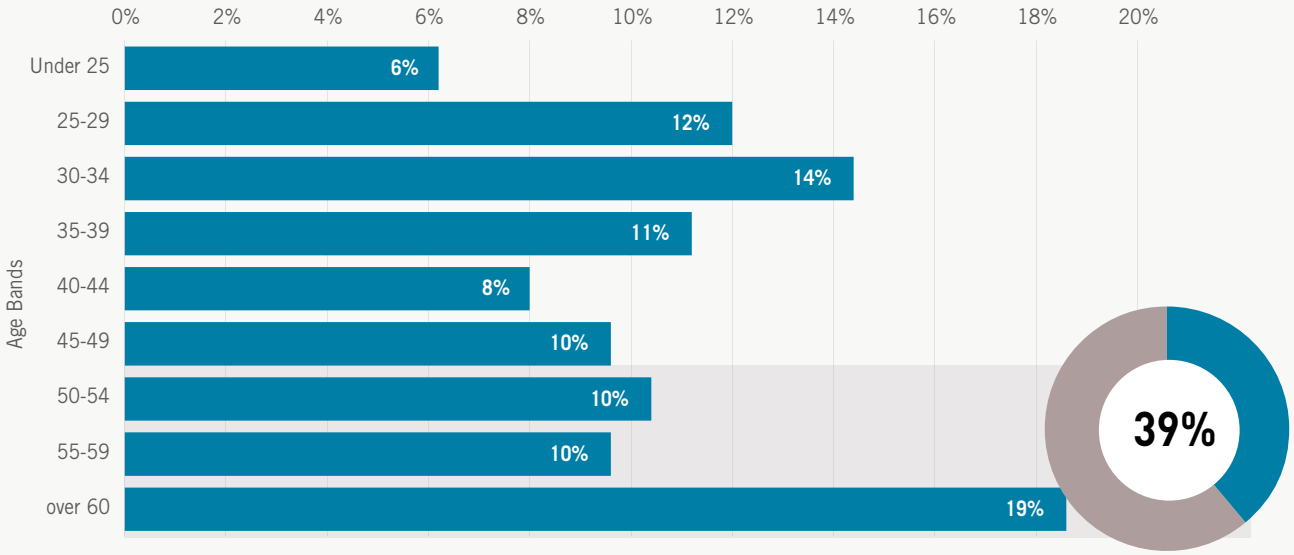
Figure 17: Seafood sector employment – by gender





Source: Stats NZ IDI and Census 2018

Figure 18: Seafood sector employment – by age



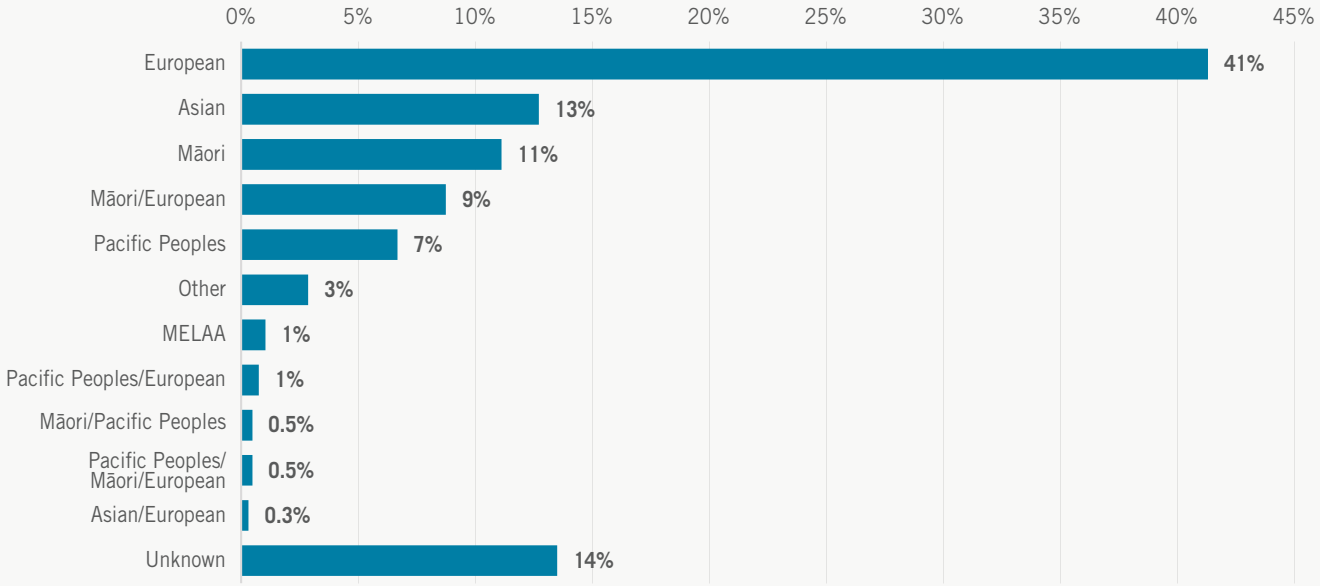
Source: Stats NZ IDI and Census 2018

Ethnicity

Around 21 percent of seafood sector workers identify as Māori, compared to 17 percent of the general population.

There are a large number of workers with an unknown ethnicity (14 percent), many of whom may be temporary migrant workers.

Figure 19: Seafood sector employment – by ethnicity



Source: Stats NZ IDI and Census 2018

Note

1 MELAA = Middle Eastern, Latin American and African

Appendix F: Options for cap and permits

In this section, we outline the various options that could be used to design a permit-based system for capping the number of migrants in the seafood sector.

The discussion is conceptual in nature and provides the necessary background to explain why we have recommended what we have.

The analysis draws heavily on the systems used in environmental regulation to allocate rights, including individual tradable quota (ITQ) used for allocating rights to fish. The New Zealand QMS was an early example. We have also examined systems used in New Zealand and elsewhere to allocate visas specifically.[85]

While clearly there are considerable differences between the seafood sector and the environment, the allocation systems used in the latter have been subject to extensive analysis and practical review and so provide a good conceptual starting point for any system to be applied to the allocation of rights to employ migrant labourers.

The size of the cap

The number of permits issued is a key policy decision and depends on the policy objectives being pursued.

If the Government wishes to see the proportion of migrants employed in the sector reduced, then a cap that falls through time would be required.

While biological limits mean that the size of the wild fishing part of the sector is unlikely to grow through time, the Government is seeking significant growth in the aquaculture sub-sector, which would need to be accommodated.

Decisions on the longevity of rights need to be considered alongside decisions regarding the number of permits. If permits are truly perpetual and the Government wants the absolute number to fall (rather than the proportion of permits issued relative to total employment in the sector), then the Government would need to be prepared to buy back a number of permits through time. This is a perfectly reasonable approach, but one that will come at a fiscal cost.

There are many rates at which a lid can sink. Three stylised rates are:

- linear: a fixed amount each year;
- proportional: a fixed percentage each year; and
- progressive: an increasing percentage each year.

Figure 20 shows the three approaches, showing a path to zero over 15 years (which is just for illustrative purposes).

If growth is to be accommodated, then a number of new permits will need to be issued over time. This could either be done by an auction or free allocation to new entrants or those seeking to expand their operations. Consistency with the initial allocation decisions, which we address below, is also desirable. Gifting to incumbents but selling to new entrants, while having similar efficiency effects, may be perceived to be unfair.

85 Places in the Samoan Quota Scheme and the Pacific Access Category are allocated by way of a draw from the pool of applicants. The US H-1B skilled visa uses a similar system. There is also a small academic literature on the sale of visas which we have reviewed.

Figure 20: Different types of sinking lids

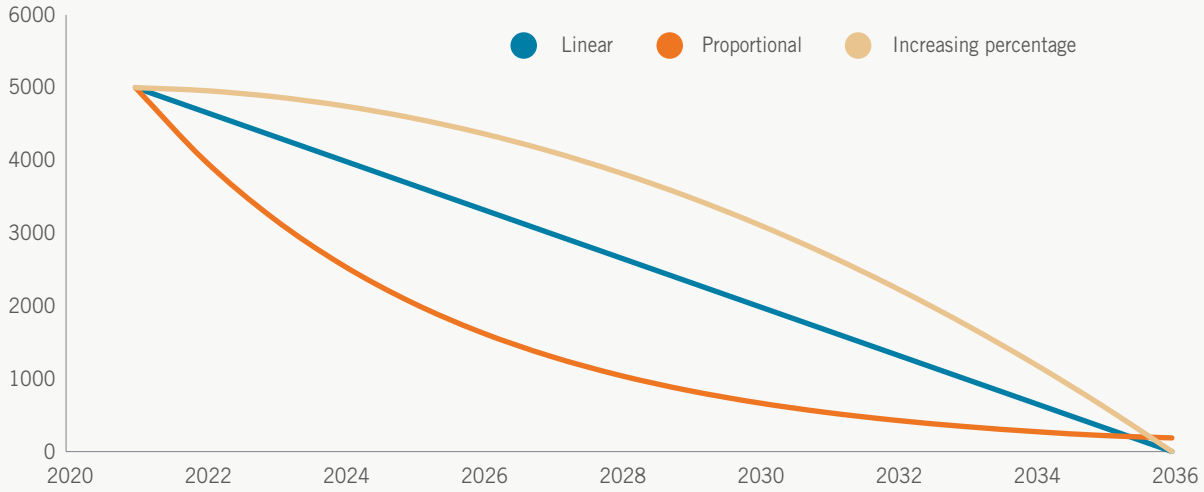


Table 10: Number of permits

Type	Description	Comments
Sinking lid.	Either the absolute number of permits or permits as a proportion of the work force falls through time, based on a pre-announced rule.	Can create a commitment problem (how does the industry know rule will be adhered to?) Legislation helps. It is also possible to do by contract, which is harder for the Government to over-ride unilaterally.
Administratively set.	Number of permits to be offered set from time to time.	With no announced principles for number of rights, this would create significant uncertainty, but would allow the Minister to adjust the transition path to developments.

Recommendation

Given projected growth in the aquaculture sector, a sinking lid approach is likely to see the value of units increase through time and may accelerate the departure of some operators. We recommend adopting a system that incorporates this growth, with the actual number of new permits issued using a transparent set of principles. We envisage that the number of permits will be kept below the total level of demand, to continue to provide incentives to employ more locals.

Employers or vessels/and facilities?

Currently, the Fishing Crew Work visa ties an individual worker to employment on a named New Zealand-flagged vessel operating in New Zealand waters.[86]

Some other types of visas issued in New Zealand require a migrant to work for a specified employer at a specified area or location.[87]

We have identified two options that could be used in the case of migrants in the seafood sector. The first is that the right to employ a migrant would, as is currently the case, be limited to a specified vessel or facility. The other is that the right could be used by an employer to employ a migrant anywhere within their operations.

86 Immigration New Zealand Operational Manual, Section WJ6.15.
87 See, for example, *Immigration New Zealand Operational Manual*, Section WK4.5 in respect of Essential Skills visas.

Table 11: Types of rights [88]

Type	Description	Comments
Right to employ a migrant in any facility or on any vessel.	Right given to anyone, who can then contract with employees (for example, employment agents).	Depending on allocation method, could allow those opposed to migrant labour to purchase rights that are not used.[89]
Right to employ a migrant crew member on a specified vessel or in a specified facility.	Right given to owner/operator of vessel.	Limits flexibility and could create rent-seeking opportunities.

Recommendation

As it would provide the most flexibility and lead to the most efficient use of migrants across the sector, we recommend that permits be attached to an employer, not a vessel or facility.

Longevity of rights

Crew visas are currently issued annually but can be rolled over and this is common practice.

Working Holiday visas are usually issued for between twelve and twenty-four months and cannot be extended.

Our system, however, is about employers, most of whom are, or at least expect to be, in the industry for a long time.

How long permits last is an important issue when firms employ long-lived assets like fishing vessels and industrial processing facilities.

Long-lasting permits are also more likely to be transferred to another employer if they are not needed, as they will have value for their whole period of currency.

88 The precise legal basis of the system will need to be determined. It could be a condition on the granting a right to fish (this may require amendment to the Fisheries Act). Alternatively, it could be implemented via the Immigration Act and associated legal instruments.

89 Whether this would happen in reality is clearly open to debate. These sorts of concerns are, however, often expressed when transferable permit regimes are introduced.

Table 12: Longevity of rights

Type	Description	Comments
Date-stamped.	Right applies to a specific year/season (e.g. 2027).	Short-term rights give the Government greater control over the number of migrants, but at the cost of certainty to firms, who would need to acquire permits every period.
Periodic.	Rights apply for a term of years (e.g. five years), regardless of when used.	Periodic permits would give firms the choice as to when they start using the right, which increases flexibility. While certainty is increased during the currency of a permit, if the period was less than the life of assets, it would not fully address the issue.
Expiry.	Right lasts for a specified period (e.g. until 2032).	Expiry is similar to periodic, but without the open-ended start date.
Perpetual.	Rights last forever.	This gives the greatest certainty. It also means that permits would have considerably more value than those issued for a year or a specified period. From the Government's perspective, the ability to reduce migrant employment is reduced, as it would, in effect, either have to buy back permits, or legislatively cancel them, which also reduces certainty.[90]

Recommendation

We recommend perpetual rights, as this creates more certainty and increases the possibility that transferring surplus permits will take place.

We note, however, that while it is possible for any Government to legislate that rights are perpetual, New Zealand's sovereign Parliament cannot bind future parliaments. Therefore, any such legislation can be repealed. This creates a commitment issue that is very difficult to overcome. So, while we recommend issue in perpetuity, we acknowledge that there are limits in practice.

Qualification of rights-holders

The ability to operate in some parts of the seafood sector is currently reserved for New Zealanders. Fishing quota, for example, cannot be held by overseas persons. The ownership of land used in seafood processing by non-residents is subject to the Overseas Investment Act 2005.

90 We are not suggesting that reducing the amount of migrant labour employed in the seafood sector is desirable. We are simply noting that this possibility would be open should a future Government wish to pursue this option.

Table 13: Qualification of rights-holders: the options

Type	Description	Comments
Open access.	Anyone (in the world) can own rights.	This could be made subject to the benefits tests in the Overseas investment Act, where an overseas owner would need to satisfy the requirement that their entry would benefit New Zealand.
New Zealand citizens only.	Only New Zealand natural persons or New Zealand controlled companies can hold rights.	Consistent with 'New Zealandisation' of industry. This would require assessment against Free Trade Agreements, WTO rules and international fishing agreements.[91]
New Zealand residents.	New Zealanders, Australians, and those with a permanent residence visa (who are physically present in New Zealand) can hold rights.	The Closer Economic Relations – CER Australia and New Zealand approach.
'Experienced fisher'.	Right limited by experience.	Constrains new entrants.

Recommendation

We recommend an open approach in this case, with participation in the New Zealand economy subject to general laws.[92]

Timing of allocation

The Government has options about the timing of the introduction of any system, and it could increase the proportion of migrants covered through time. It would, however, need to determine a benchmark level of current employment in the sector and the number of migrants currently employed. This would require a specific data-gathering exercise.

Table 14: Timing of allocation

Type	Description	Comments
All rights issued at commencement	The full number of rights are issued at once when the programme begins.	Creates maximum certainty as to number of rights. Limits the Government's ability to adjust programme based on experience.
Annual/seasonal expansion	Increasing number of rights issued for a coming season allocated in previous year.	Creates stranded asset risk if assets are long-lived.
Periodic	Rights allocated, say, every five years.	Lessens risk that existing assets will not be able to be used due to lack of migrant labour.

Recommendation

We recommend the scheme be introduced to start from a single date, applying to all parts of the sector.

91 Initial advice from the Ministry of Foreign Affairs and Trade is that none of our existing free trade agreements limit New Zealand's right to regulate labour in the manner envisaged.

92 We note that restrictions on fishing quota ownership does mean that the employment of migrants is currently de facto limited to citizens, permanent residents, and firms with Overseas Investment Act approval where quota owners are fishing themselves.

Types of the initial allocation

The initial allocation of rights to existing employers will be the most contentious issue to be addressed.

The options normally come down to a choice between free allocation and sale. Free allocation can be based on historical participation, by ballot or by industry being asked to design rules (this was the approach taken for the allocation of QMS quota to iwi).

The arguments that will be advanced for gifting are familiar:

- a new regulatory regime threatens the livelihood of existing participants;
- the system creates incentives for gaming, with 'deep-pocketed' incumbents able to corner the market, or at least accumulate excessive numbers of permits in order to drive their competitors out of business;
- requiring firms to purchase something that was previously free is unfair and involves shifting the goal posts; and
- being required to pay for permits will make existing firms unviable.

Experience in these sorts of regimes, including the QMS, shows that many of these concerns turn out to be unfounded.

There are, however, numerous options and combinations of options that can be considered.

Table 15: Types of allocation[93]

Type	Description	Comments
Grandfathering, non-transferrable.	Allocation of permits based on previous levels of employment of foreign crew. For example, Firm A, which employed 15 percent of crew, will always get 15 percent of whatever number of permits are issued. Rights are use-it or lose-it: if they cannot be transferred, any right that is not used is lost.	Initial allocation needs to be based on pre-announcement employment pattern to avoid gaming (that is, to stop firms artificially increasing employment of migrants to increase their allocation). Use-it or lose-it right means no apparent windfall gain to existing employers. But this limits incentives for low-efficiency operators to exit the industry. Not permitting transfers can be gamed around by contracting an owner of rights to work for another firm that has fewer rights but has a high demand. In the absence of this sort of contracting, it would be impossible for new entrants to enter the market.
Grandfathering, with transfers permitted.	Initial allocation of permits based on previous levels of employment of migrant labour, but rights can be transferred.	Initial allocation needs to be based on pre-announcement employment pattern to avoid gaming. Transferability allows new entrants into the sector, if they can agree terms for transfer. This leads to windfall gains for existing fishers, weakens the signal that migrant labour is to be reduced, and creates a path for exit for inefficient incumbents.
Club allocation, without transferability.	Allocation to be decided by incumbents under rules they agree on.[94] Once allocation is made, no transfer of rights allowed.	Potentially very disruptive, as no obvious equilibrium (holdouts and vetoes possible, depending on conditions placed on rules). Conditions would need to state what happens in the absence of agreement.[95]
Club allocation, with transferability.	Allocation to be decided by incumbents under rules they agree on. Once allocation is made, transfers allowed (either only within the Club or more generally).	Potentially less disruptive, as post-allocation trading will allow flexibility.
Auction,[96] without transferability.	Permits auctioned, with no transferability. Auctioning reveals the bidders' valuation.	Avoids granting windfall gains to incumbents (they must buy rights). Lack of transferability risks stranded assets (unsuccessful incumbent bidders).

93 Various combinations of methods are possible. For example, grandfather 50 percent of permits, auction the rest.
94 This was the approach used for the allocation of fishing quota to Māori under the Commercial Fishing Rights settlement.
95 This was overcome in the case of the Commercial Fishing Rights settlement by allocating quota to a separate body, which was to hold them until allocation was decided. The Crown Forestry Rental Trust is a similar model.
96 The type of auction used is important, and there is a large body of examples on which to draw. A common approach to selling rights is a Vickery Auction, where the winner is the person who submits the highest bid, but they pay the second-highest bid. This approach maximises the incentive on the part of bidders to reveal their true valuation.

Type	Description	Comments
Auction, with transferability	Permits auctioned, with post-auction transfers permitted.	Reduces risk of asset stranding but does create opportunities for opportunistic behaviour (bidding to corner the market and thus ability to extract rents from re-sale).
Sale at a fixed price, no transfers permitted	This is akin to a tax. Would require some sort of book-build rule if offer over-subscribed.[97] Would require the Government to determine its valuation of the rights.	In the absence of good information, the Government could either set the price too low (which constitutes a value transfer to successful buyers) or too high, thus risking stranding assets.
Sale at a fixed price, transfers permitted	This is akin to a licence fee, with the licence being saleable.	Reduces risk of asset stranding.

Recommendation

We recommend either grandfathering via gifting or sale over balloting or a fixed-fee approach.

If the Government puts more weight on not imposing an additional cost on incumbents, then gifting should be the preferred approach. If it is concerned to allow new entrants, especially in the growing sub-sector of aquaculture, then sale should be favoured.

All sale-based methods create the issue of what to do with the revenue. We would recommend using any revenue raised to fund training and initiatives to improve areas where there are particularly negative perceptions of the sector.

97 A 'book-build' is an approach used in the financial sector when firms go to the market with a new offering, like an issue of shares, where the number of securities is fixed. Prospective buyers enter bids for the number of units they wish to purchase at what price. The seller then ranks the bids in descending price order, until the number bid for equals to number on sale. The price offered by the last bidder in this ranking determines the final price.

Appendix G: Worked examples

We present four worked examples showing how we envisage our proposed system would operate.

For the purposes of these examples, we have assumed that the government has accepted all our recommendations, including the allocation system in Table 7.

Example 1: A fully integrated seafood operator

Tahi Ltd is a fully integrated operator, which owns six deepsea vessels. Two of these are fully foreign-crewed and four have 90 percent locals. All of these vessels operate an equal time on/time off rotation. In a single year, Tahi Ltd employs 480 people on Fishing Crew Work visas and a further 720 locals.

It also operates its own onshore processing plant, which has 400 processing roles, operated on two shifts. Out of its 800 processing staff, on average over a year, 125 are working holidaymakers, 25 are foreign students and the rest are locals.

Based on historical experience, Tahi Ltd would receive 390 migrant position permits.

Under our system, an employer is only required to hold a permit to cover a visa holder actually in New Zealand engaged in work on a vessel. If they operate a vessel with crew working an equal time on/time off rotation, they only need one permit even though they would employ two separate people in New Zealand on a visa through the year.

Table 16 shows the firm's position in terms of staff and permits once it has received its allocation.

Tahi Ltd decides to retire one of its fully foreign-crewed vessels and buy a new, modern replacement. After advertising, it employs crew for 90 percent of the new berths on the vessel locally, with 20 migrants needed to fill the complement. This means that it has a surplus of 90 permits.

It also decides that it wants a more permanent processing workforce. Tahi Ltd uses the 150 permits it has from its existing processing operations to recruit new migrant processing staff from overseas. It hires 150 people to replace the itinerant working holidaymakers and foreign students it traditionally uses to staff its processing operations.

Tahi Ltd now has 90 surplus permits which it seeks to transfer to another employer.

Table 17 shows the position after Tahi Ltd has hired all the workers for its new vessel and processing plant.

Table 16: Tahi Ltd's initial operations

Vessels and facilities	Positions	People	Migrants	Permits
Two 100 percent migrant crew deepsea vessels	200 (2 x 100)	400 (2 x 2 x 100)	400	200
Four 90 percent local crew deepsea vessels	400 (4 x 100)	800 (4x 2 x 100)	80	40
Processing plant	400	800 (2 x 400)	150	150
Total	1,000	2,000	630	390

Table 17: Tahi Ltd's operations at the end

Vessels and facilities	Positions	People	Migrants	Permits
One 100 percent migrant crew deepsea vessel	100 (1 x 100)	200 (1 x 2 x 100)	200	100
Five 90 percent local crew deepsea vessels	500 (5 x 100)	1,000 (5 x 2 x 100)	100	50
Processing plant	400	800 (2 x 400)	150	150
Total	1,000	2,000	450	300

Example 2: A stand-alone processor

Rua Ltd owns a seafood processing factory in Motueka, processing fish on contract for other firms. While it operates year-round, it has a peak season during the hoki spawn.

Historically, Rua Ltd has been able to operate using local labour, and has not employed any migrants.

It is seeking to expand its operations and install a new processing line, which will employ 200 people, working on two shifts during the peak and one shift for the rest of the year. Rua Ltd has decided that it wants to employ migrant workers on the Seafood Sector visa for the peak season and has built a new accommodation block as part of its expansion.

It has arranged for the transfer of 100 permits from other employers (including some of the 90 made available by Tahi Ltd). With these permits, Rua Ltd enters into an arrangement with a migrant hire company with experience in the RSE scheme to engage 100 people from the Pacific to come to New Zealand for the peak season to work in its plant.

Rua Ltd may also enter into an arrangement with another seafood sector firm that wishes to utilise some or all of the 100 permits during Rua Ltd's off season.

Example 3: An inshore operator

Toru Ltd owns three inshore fishing vessels, with 21 positions. Due to difficulties attracting local crew, it has traditionally engaged two migrants on each of its three vessels. Under our proposal, it will be allocated six permits.

After partnering with a local training establishment, Toru Ltd employs three cadets to gain experience on its vessels. After they have completed their training, all of these crew are offered full-time positions across the firm's fleet, replacing a migrant crew.

Toru Ltd has three excess permits which it could make available to other employers.

Example 4: An aquaculture operator

Whā Ltd is a new entrant in the aquaculture sub-sector. It is a listed public company and has raised sufficient capital to develop a new open ocean fish farm.

To install the new farming equipment and commission a new highly automated processing facility that it has constructed in Timaru, it will need to hire 25 engineers and technicians from Norway, where the farming equipment was manufactured. This expertise is only required in New Zealand for the installation and commissioning phase.

None of these migrant workers will require a permit, as they will come to New Zealand on Essential Skills visas.

October 2021