Australian Aquaculture and Wild Catch Industry Sector

Annual Update 2020
IRC Skills Forecast and
Proposed Schedule of Work

Prepared on behalf of the Aquaculture and Wild Catch Industry Reference Committee (IRC)
for the Australian Industry Skills Committee (AISC).

Contents

Purpose of this Skills Forecast

This Skills Forecast and Proposed Schedule of Work presents the latest industry intelligence from the Aquaculture and Wild Catch (IRC), inclusive of national and industry data sources and input from key stakeholders. It further proposes vocational education and training (VET) Training Package review and development work that the IRC deems necessary to meet the needs of industry. The Australian Industry and Skills Committee (AISC) considers this information and includes commissioned work in the National Schedule[1].

At its June 2019 meeting, the AISC changed the requirements for the annual Skills Forecast. IRCs are now required to submit comprehensive Skills Forecasts once every three years, with abridged annual updates in the intervening two years. As IRCs submitted comprehensive Skills Forecasts in 2019, the next are due in 2022.

This document is not intended to be representative of every issue encountered across all industry sectors; it identifies and addresses the challenges and opportunities that industry has determined as 'priority' for this stage of the schedule, and is a resource for industry and associated skills, learning and accreditation bodies seeking to act upon them.

Detailed information concerning industry skills needs across all sectors covered by the Aquaculture and Wild Catch IRC, including information from previous Skills Forecasts, can be found on the Skills Impact website: https://www.skillsimpact.com.au/aquaculture-and-wild-catch/skills-forecast/.

Method & Structure

This is an annual update to the comprehensive Skills Forecast submitted in 2019. IRCs are required to answer the questions in **Section A** to provide updates on issues such as industry skills and workforce development, and qualification utilisation.

IRCs are also permitted to propose additional Training Package development work projects to be included in the Proposed Schedule of Work. Where relevant, these are included in **Section C**, which includes:

- Evidence of employer and industry need for graduates;
- Alignment to Ministers' Priorities;
- Consultation plan.

Section B details the extensive, robust and ongoing industry consultation undertaken by IRC members and Skills Impact, including with rural, regional and remote stakeholders. In line with Skills Impact's values[2], this helps to ensure transparency and accountability in the process of industry research and Training Package development work.

This Skills Forecast and Proposed Schedule of Work is developed in line with:

- Standards for Training Packages 2012[3];
- Training Package Products Policy[4];
- Training Package Development and Endorsement Process Policy[5].

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[1] https://www.aisc.net.au/content/national-schedule

[2] https://www.skillsimpact.com.au/about/

[3] https://docs.education.gov.au/documents/standards-training-packages-2012

[4] https://docs.employment.gov.au/documents/training-package-products-policy

[5] https://docs.employment.gov.au/documents/training-package-development-and-endorsement-process-policy-0

Industry Reference Committee

The Aquaculture and Wild Catch IRC is responsible for national Training Package qualifications relevant to the seafood, aquaculture and wild catch industry.

Qualifications overseen by the IRC are in the *SFI Seafood Industry Training Package*.

The Aquaculture and Wild Catch IRC is supported by the Skills Service Organisation, Skills Impact.

Name	Organisation or Area of Expertise
Andrew Driscoll	Department of Primary Industries – Fisheries NSW
Andrew Tabor	Expert – Aquaculture
Brian Jeffriess	National Aquaculture Council
Franca Romeo	Expert – Wild Catch Fishing
Helen Jenkins	Expert – Aquaculture (crustaceans)
James Garde	Tasmanian Seafood Industry Council
Johnathon Davey (Chair)	Expert – Wild Catch Fishing
Kade Wakefield	Australian Workers Union
Mark Cody	Expert – Aquaculture
Representative to be announced	South Australian Oyster Growers
Steven Gill (Deputy Chair)	Expert – Aquaculture
Tom Consentino	Southern Rock Lobster Ltd

Executive Summary

The Aquaculture and Wild Catch Industry has been significantly impacted by the various weather, bushfire and pandemic events of the last 12 months.

The Aquaculture and Wild Catch Industry Reference Committee (AWC IRC) believes that the recent updating of the *SFI Seafood Industry Training Package* will provide support over the coming months, both directly through training and by assisting employers to complete analysis of skills. The training package is fully updated and describes modern work processes applicable across the industry.

The completion of the current Fishtech and Aquabotics Project would also enhance the capacity for recovery from the current situation, by adding new, and better identifying current, flexibility in training delivery. Unfortunately, the timeline for completion of the project may be affected by current events, although all available steps are being taken to try to keep it on track.

In the medium and long-term, the AWC IRC remains committed to finding better ways of assisting Indigenous communities in creating and maintaining commercial operations, and for ensuring there is accessible training for current and future workers. Last year, the AWC IRC submitted a project to address issues in this area, which was considered to be outside of the scope for projects at that time. The project has been redesigned based on feedback and comments. In addition, given the increasing crossover between conservation and land management and aquaculture and wild catch, the AWC IRC has invited the Amenity Horticulture, Landscaping and Conservation and Land Management IRC to submit a joint project this year for further consideration.

During 2020, the AWC IRC will oversee the completion of the Fishtech and Aquabotics Project and the skills standards for those working with crocodiles. In addition, the IRC believes that, over the course of this year, there will be more feedback received on the implementation of the updated training package, and it will monitor and address issues as they arise. The IRC also expects the current and recent weather, bushfire and pandemic events to give rise to new issues that will need to be addressed.

Section A: Overview

Industry Developments

The Aquaculture and Wild Catch (AWC) Industry Reference Committee (IRC) is currently overseeing two major projects that will complement the significant work completed in 2019 to overhaul the entire *SFI Seafood Industry Training Package*, so it continues to meet the needs of industry.

The IRC recognises the major operational and economic impacts on the seafood industry following recent extreme weather conditions, which have devastated Australian regions, industries and communities, and, more recently, the coronavirus pandemic.

Coronavirus/COVID-19

The AWC IRC has focused on biosecurity throughout its period of operations and believes that current approaches, supported by the training package, are world-class. As new challenges arise so too does new knowledge, and the IRC will monitor whether additional training package solutions are required. In this context, the IRC may propose additional projects.

The completion of the current project relating to fishtech and aquabotics will also ensure that RTOs have greater flexibility in delivery, and a better understanding of current flexibility that exists within the training package. However, delivery of these projects is likely to be affected by the dramatic operational changes within industry, particularly in relation to the ability to undertake full industry consultation. Alternative options may need to be considered to ensure delivery of this project at a time that will best assist industry recovery.

International seafood markets are shutting down as a result of the coronavirus/COVID-19, including major markets for Australian exports. The seafood sector was immediately impacted by the pandemic and, in stark contrast to their previous forecast of a 4% rise to $3.3b in 2019-20[6], ABARES now predicts that the value of fisheries and aquaculture will fall by 12% ($389 million) to $2.81 billion[7]. The rock lobster industry exports 94% of its produce to China. When demand from the Chinese market collapsed, the sector was destabilised, with the resulting oversupply causing price reductions domestically, especially in Western Australia[8]. Fishers are also being paid less for scallops, prawns and lobsters, with some receiving only two-thirds of what would normally be expected.

Industry is turning to local markets in an attempt to sell stock usually reserved for export[9]; however, local sales would potentially only mitigate a small proportion of losses. Many in the industry are calling for help[10], especially from state and federal governments, in these unprecedented and unpredictable times.

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[6] ABARES 2019, *ABARES Agricultural Commodities: March 2019*, viewed March 2020
<https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/abares/agriculture-commodities/AgCommodities201903_FisheriesOutlook_v1.0.0.pdf>

[7] ABARES, 2020, Australian fisheries and aquaculture outlook 2020, viewed March 2020
<https://www.agriculture.gov.au/abares/research-topics/fisheries/fisheries-economics/fisheries-forecasts >

[8] 9News, 2020, *Coronavirus crisis: Cheaper rock lobsters for Aussies but fishermen, exporters feel pain*, viewed March 2020
<https://www.9news.com.au/national/coronavirus-latest-rock-lobster-prices-down-exporters-feel-pain-at-china-market-collapse/bb56847b-4be6-477e-8c7a-2868ff80379c>

[9] ABC News, 2020, *Coronavirus likely to wipe $389 million off Australian seafood industry's bottom line*, viewed March 2020
<https://www.abc.net.au/news/2020-03-05/australian-seafood-takes-massive-hit-as-coronavirus-spreads/12022136>

[10] Seafood Industry Australia, 2020, *'Keep fish on the table': Seafood industry eagerly awaits government assistance,* viewed March 2020
<https://seafoodindustryaustralia.com.au/2020/03/23/keep-fish-on-the-table-seafood-industry-eagerly-awaits-government-assistance/>

Figure 1: Australian fisheries and aquaculture timeline

Fisheries production value to dip

Fisheries and aquaculture production value is projected to fall in 2019−20, caused largely by reduced export demand from China following the 2019 coronavirus (COVID-19) outbreak. Market conditions are expected to normalise in 2020−21 and production value is expected to rise over the medium term (2020−21 to 2024−25).

f ABARES forecast. z ABARES projection.
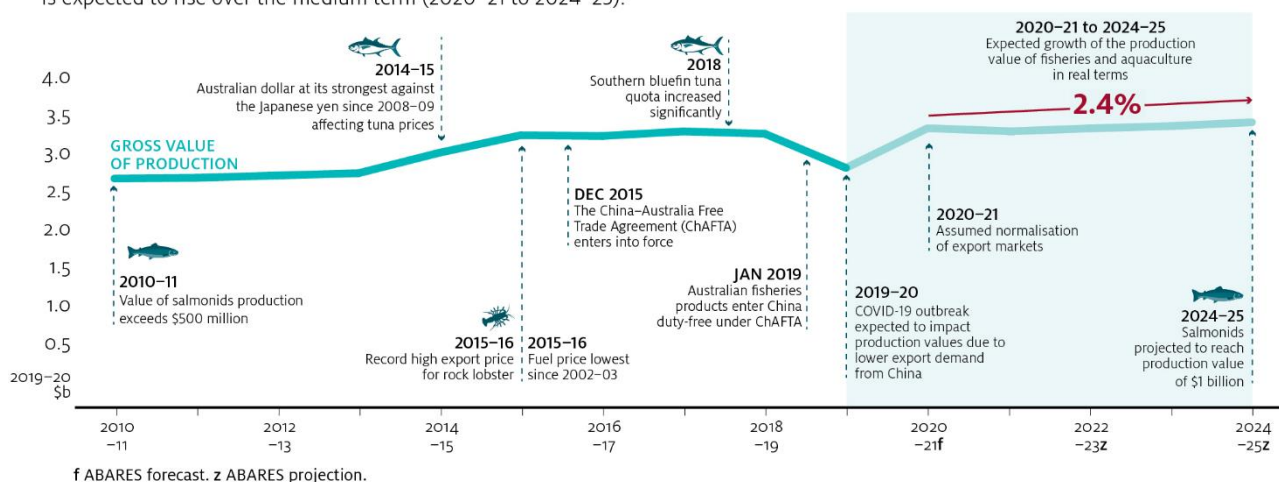
Source: ABARES, 2020, Australian fisheries and aquaculture outlook 2020, viewed March 2020 <https://www.agriculture.gov.au/abares/research-topics/fisheries/fisheries-economics/fisheries-forecasts#aquacultures-share-of-production-value-to-rise>

Despite projected future (re-)growth (see Figure 1 above), dropping demand in the immediate term has seen staff numbers being scaled down at seafood processing facilities and fishing crews out of work[11]. Commercial fishers are deferring catch where possible, depending on the fishery, location and their ability to use up their quota. This will be likely to limit the assumed normalisation of markets in 2020-2021. The Australian Fisheries Management Authority (AFMA) are also offering levy deferral to operators impacted by COVID-19[12].

Prior to the World Health Organisation (WHO) defining COVID-19 as a pandemic, the Queensland Government announced a $3.66 million commercial fishing industry assistance package, which encompasses waiving quota fees, expanding tropical rock lobster fishery areas and 'market diversification and resilience grants' to help develop alternative markets[13]. The latter, which makes available grants of up to $50,000, includes staff training activities.

Seafood Industry Australia, the national peak industry body, is, at the time of writing, surveying the industry about the impacts of COVID-19. While there is some optimism seafood trade with China will resume from April 2020[14], unforeseen effects of the pandemic on industry will unfold in due course, hence it is imperative that the government is open to additional change and consultation, as directed by the IRC, as needs arise.

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[11] ABC News, 2020, *Coronavirus devastates Bowen's fishing industry, farmers face uncertain winter,* viewed March 2020 <https://www.abc.net.au/news/2020-03-23/coronavirus-downturn-wreaks-havoc-in-bowen-coral-trout-industry/12076550>

[12] AFMA, 2020, *AFMA offering levy deferral to operators impacted by COVID-19*, viewed March 2020 <https://www.afma.gov.au/news-media/news/afma-offering-levy-deferral-operators-impacted-covid-19>

[13] Queensland Government, 2020, *Coronavirus support for commercial fishers,* viewed March 2020 <business.qld.gov.au/industries/farms-fishing-forestry/fisheries/coronavirus-support>

[14] 2gb, 2020, *Optimism seafood trade will soon resume*, viewed March 2020 <https://www.2gb.com/podcast/optimism-seafood-trade-will-soon-resume/>

Drought and Bushfires

In 2019, Australia experienced its hottest and driest year on record. As the land heats up, so too do the oceans and waterways. Based upon Australian expert analysis of over 100 fished species' sensitivity to climate change, CSIRO report that 70% have moderate to high sensitivity[15]. The seafood industry has already experienced the direct and indirect effects of global climate change, with variations in fish stocks and behaviour, disease outbreaks, algal blooms and the appearance of invasive species.

Drought has lowered catchment levels and impacted on aquaculture operations, which rely upon adequate supplies of fresh water. Moreover, with minimal fresh rainwater to flush river systems, salt levels in the water become concentrated and this causes fluctuations in the size of species such as prawns, as well as the size of yields. Lower yields mean higher prices for consumers[16].

Bushfires have also impacted on the industry. As reported in The Age[17]:

> "Stocks of prawns, snapper, whiting and flathead around the coasts of south-east Australia are now threatened by ash and other bushfire debris making its way from the Victorian and NSW fire grounds to estuaries and coastlines."
>
> [The Age, 'Fish stocks now threatened by bushfire run-off', viewed March 2020]

Bushfires release carbon dioxide, much of which is absorbed by the oceans, thus increasing water acidity[18], a particular hazard for shellfish. Additionally, materials such as heavy metals from cars and buildings are turned to ash by bushfires and are reaching oceans and waterways, increasing contamination, depleting oxygen levels and impacting on food sources, for instance phytoplankton.

Rising water temperatures and diminishing food sources affects the migration patterns of fish species and so the operations of commercial fishers. Fishing businesses operate under strict parameters in terms of where and when they can fish, and what they can catch. If fish move further south to cooler waters, for example, commercial fishers may be subject to limitations, or even prohibited from, operating within these areas. These circumstances are multifaceted but have very real impacts on the wild catch industry, sometimes resulting in a short supply of fresh, local produce for the market place and hospitality industry. It also impacts on the mental health and wellbeing of commercial fishers[19], who are not currently eligible for the Farm Household Allowance (FHA) despite being primary producers[20]. This has serious implications for the seafood industry, as many small- to medium-sized businesses are left with no safety net.

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[15] CSIRO, 2018, *Warming oceans are changing Australia's fishing industry*, viewed March 2020 <https://blog.csiro.au/warming-oceans-are-changing-australias-fishing-industry/>

[16] ABC News, 2019, *Christmas prawn prices on the rise as drought hits supply on New South Wales north coast*, viewed March 2020 <https://www.abc.net.au/news/2019-12-23/prawn-prices-rise-in-nsw-as-drought-hits-supply/11818890>

[17] The Age, 2020, Fish stocks now threatened by bushfire run-off, viewed March 2020 <https://www.theage.com.au/national/victoria/fish-stocks-now-threatened-by-bushfire-run-off-20200120-p53t34.html>

[18] Fotrbes, 2020, *How Will The Australian Bushfires Impact The Ocean? Here's What We Know*, viewed March 2020 <https://www.forbes.com/sites/ariellasimke/2020/01/10/how-will-the-australian-bushfires-impact-the-ocean-heres-what-we-know/#238b561e57de>

[19] T. King, K. Abernethy, S.Brumby, T. Hatherell, S. Kilpatrick, K. Munksgaard, & R. Turner, 2018, *Sustainable Fishing Families: Developing industry human capital through health, wellbeing, safety and resilience.* Report to the Fisheries Research and Development Corporation Project No. 2016/400. Deakin University, Western District Health Service, University of Tasmania and University of Exeter. Canberra, October. CC BY 3.0

[20] ABC News, 2018, Drought on the water: Australian fishers call for help to be expanded beyond land-based farming, viewed March 2020 <https://www.abc.net.au/news/2018-11-13/fishers-seek-drought-support-to-be-expanded-beyond-the-land/10487830>

Indigenous Aquaculture and Wild Catch

The AWC IRC reiterates the importance of Indigenous involvement in the development of all aspects of the aquaculture and wild catch industries. This includes the potential for commercial fishing using customary methods and the development of enterprises, partnerships or agreements for fishing within areas covered by Indigenous Land/Sea Titles and Claims.

Aquaculture and wild catch are traditional activities of Indigenous communities, both in customary and commercial senses. There is evidence of seafood trading and ceremonies involving the sharing of seafood between Indigenous communities, as well as trading in sea products between Australian Indigenous communities and countries to the North and into the Pacific Islands prior to settlement.

The Marine Fisheries and Aquaculture Productivity Commission Report[21] devotes Chapter 5 to Indigenous Fishing, noting that more than half of all Indigenous people aged over 15 have participated in customary fishing. Key points in the report include:

- There is a need to improve engagement between fisheries managers and Indigenous fishers;
- There is also scope to increase the application of Indigenous traditional knowledge in fisheries management through Indigenous Sea Ranger programs and other means;
- To ensure that the customary allocations and any controls over customary fishing activities are culturally sensitive and do not infringe on the rights and interests of native title holders, they need to be developed in collaboration with Indigenous communities;
- Native title determinations have recognised the right of some native title holders to fish for any purpose, including sale, barter and exchange. Consistent with the intent of recognising customary fishing rights, the definition of customary fishing should provide for fishing for such purposes where in accordance with Indigenous laws and customs;
- Native title provides access to fisheries for some groups. Changes in jurisprudence and slow pace of native titles determinations have created uncertainty over the full extent of native title rights and interests. This uncertainty has contributed to customary fishing often being management by exemption under fisheries laws rather than being recognised (and managed) as a sector in its own right;
- The Productivity Commission Report notes that customary fishing benefits both the individual fisher – through the monetary and social value of catching fish, both for consumption and traditional ceremonies – and the wider community, through flow-on expenditure and upholding cultural customs and behaviours;
- The IRC has prioritised supporting the foundations for increasing Indigenous involvement in Aquaculture and wild catch and reaffirms its support for projects that may facilitate opportunities in areas such as;
- The development of enterprises, partnerships or agreements for onshore, offshore and intertidal activities within areas covered by Native Title Land / Sea Titles and Claims;
- The establishment of operations and remote centres in Indigenous and isolated communities where establishment may have significant impacts on the economic health and training opportunities for local communities;
- Commercial fishing using customary methods to service markets through Australia and the Asia Pacific area (especially the Pacific Islands) where sea produce has been used in customary celebrations, rites and ceremonies.

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[21] Productivity Commission, 2016, *Marine Fisheries and Aquaculture, Final Report*

The Northern Australia Aquaculture Industry Situational Analysis report by the Cooperative Research Centre for Developing Northern Australia (CRCNA)[22] provides further evidence of the lack of successful Indigenous aquaculture ventures or businesses (defined where there is an Indigenous majority in board governance, management and investment) in northern Australia. The report elaborates:

Indigenous Aquaculture – Recommended Frameworks

Local capacity in remote Indigenous communities for corporate governance and business management were perceived as key barriers to achieving success in aquaculture ventures and in economic independence more broadly. In terms of developing Indigenous capacity, Fleming (2015) recommended:

- Develop a long term structurally-integrated regionally-based Indigenous fisheries development program – to establish an Indigenous fisheries-based sector across the Territory {which could equally apply across northern Australia};
- Identify business models that integrate both cultural and corporate fisheries business and governance arrangements – while in the interim, pragmatic models continue to be used {concept expanded by Colquhoun, 2017};
- Improve Indigenous participation in fisheries work through further social research into effective engagement strategies;
- Develop fisheries agencies' capacity to facilitate Indigenous participation in commercial fisheries;
- Develop fisheries agencies' capacity to facilitate fisheries businesses;
- Develop industry's capacity to effectively negotiate mutually beneficial commercial arrangements with Indigenous people;

Recommendations for developing economically viable ventures made to the IRG and FRDC by Colquhoun (2017), and applicable to other RD&E funding agencies such as the CRCNA, were:

- Implement a plan to identify Indigenous fishery communities across Australia that hold exclusive or nonexclusive rights to, and control of underutilised fishery resources.
- Encourage Indigenous fishery communities, which seek to develop their fishery resources, to establish at least one community corporation registered with the ORIC.
- Encourage each Indigenous fishery community (including residents and remote Traditional Owners and members) to undertake a formal planning process.
- Encourage community to identify commercial partners, networks and collaborations.
- Empower Indigenous fishery community leaders to attend, contribute to and learn from joint seminars and workshops that include sharing "venture stories".

This year, the Aquaculture and Wild Catch IRC has invited the Amenity Horticulture, Landscaping, and Conservation and Land Management IRC (AHLCLM IRC) to submit a joint research project aimed at improving employment outcomes and support through training package product development, as well as addressing issues raised by the AISC, though the Annual Update process, specifically in an Indigenous context.

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[22] J. Cobcroft, R. Bell, J. Fitzgerald, A. Diedrich & D. Jerry, D., 2020, p.30, *Stage 1 report: Northern Australia Aquaculture Industry Situational Analysis*, James Cook University,Townsville, Qld.

VET Qualifications & Employment Outcomes

Reasons for Employing People with VET Qualifications

It is difficult to answer this question due to the absence of industry reports and statistical data that address the issue. While this question is specifically directed to qualifications, employers consider skills and other attributes for employment purposes. It is clear, however, that employers require the skills that VET facilitates. For example, the CRC for Developing Northern Australia (CRCNA)[23] states that:

> "There is already a current undersupply of skilled personnel (particularly in the technical/VET skills and senior management areas). Data collected from this project indicates a need for skilled personnel to fill at least 1,400 additional jobs in aquaculture in northern Australia by 2030."

With this in mind, employers will consider a range of evidence as proof of proficiency, including skill sets and other training, whether formal or otherwise. Different employers have various reasons for employing or not employing people with VET qualifications, depending on their location, size, type of business and other factors.

NCVER data, sourced from the National Student Outcomes Survey, on SFI Training Package graduates[24] shows that:

- 60.0% of those not employed before training became employed after training.
- 0.0% of those employed before training became employed at a higher skill level after training.
- 88.8% of those employed after training received at least one job-related benefit.
- 17.1% of those employed after training were in the 'Retail Trade' industry (the most common industry of employment).

It is remarkable that, according to NCVER data, no graduates employed before training became employed at a higher skill level after training in 2018 (compared to the national average of 18% across all training packages). This implies that nobody in Australia enrolled in *SFI Seafood Industry Training Package* qualifications, skills sets or units of competency with the objective of upskilling to be promoted. There are various possible hypotheses to be derived from this data – that industry generally does not perceive the value of VET in upskilling workers; or that the next generation of seafood industry leaders are not being sought from the existing workforce. However, the IRC do not currently possess robust evidence to support these suppositions and would welcome further research to investigate this issue.

Feedback collected during stakeholder engagement indicates that the reasons for employing people with VET qualifications include:

- A qualification is evidence of a level of knowledge, at least to the level of the candidate being relatively safe within a workplace and capable of learning further proficiency.
- Regulatory, licensing and 'ticket' requirements such as commercial fishers requiring licenses set down through the Australian Maritime and Safety Authority.
- It is relevant to Awards, Workplace Agreements, job classifications and wages in particular larger employers within industrial instruments such as Enterprise Bargaining Agreements.

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[23] J. Cobcroft, R. Bell, J. Fitzgerald, A. Diedrich & D. Jerry, D., 2020, p.85, *Stage 1 report: Northern Australia Aquaculture Industry Situational Analysis*, James Cook University,Townsville, Qld.
[24] NCVER, 2019, *VET graduate outcomes*, SAS Visual Analytics

Some employers engage directly with the VET system to facilitate learning. NCVER found for the 'agriculture, forestry and fishing' industries (including aquaculture) that around 21% use nationally recognised training:

Table 1: Employers' use of the VET system, 2017 and 2019 (%)

Employer characteristics	The VET system					
	Employers with vocational qualifications as a job requirement		Employers with apprentices/trainees		Employers using nationally recognised training	
	2017	2019	2017	2019	2017	2019
Industry (Base: all employers within industry)						
Agriculture, forestry and fishing	18.5	15.7	9.6	12.6	21.3	21.5

Source: NCVER, 2019, p.13, Australian vocational education and training statistics: employers' use and views of the VET system 2019

Reasons for Not Employing People with VET Qualifications

The labour market is so tight that businesses are not in a position to turn potential workers away. Labour and skills shortages have long been an issue for the seafood industry – for example, due to an aging workforce and limited capacity to employ young people.

The Australian government is developing a National Agriculture Workforce Strategy to address the needs of agriculture, fisheries and forestry industries to future proof a skilled workforce. The strategy will be developed by the recently appointed National Agricultural Labour Committee, which will investigate ways to ensure a sustainable future workforce. The committee consists of 11 members and includes one seafood industry representative.

> Much of the aquaculture and fishing industry is located in regional, rural and remote areas. Where formal training is not offered, there is a greater incentive to employ and train informally than to facilitate formal training, but run the risk of losing workers to metropolitan areas.

The focus of the committee will look at:

- Current and expected future industry workforce and skill needs.
- Current and expected demand and supply of labour for the agricultural supply chain to meet future agriculture industry workforce and skill needs.
- The effectiveness of current education and training arrangements, including programs designed to promote agricultural careers to students, at meeting the agriculture industry's workforce and skills needs.
- Best practice examples and case studies of agricultural workforce development and potential innovative approaches aiming to deliver better outcomes.
- The outcomes from any other relevant reviews, consultation to date and inputs made by industry groups.

An additional component to this is much of the aquaculture and fishing industry is located in regional, rural and remote areas where jobs are a key deciding factor in population and workforce retention, not training and qualifications. For example, large, integrated commercial fishing companies are researching labour options within key areas of Queensland as part of their feasibility into building a new processing operation. Ensuring they have access to a labour pool is a key concern and significant factor in their research. In areas where formal training is not offered, there is a greater incentive to employ and train informally than to facilitate formal training but run the risk of losing workers to metropolitan areas.

In some instances, the nature of work may prohibit a worker from being eligible for a traineeship or apprenticeship because technically, a deckhand may be considered a 'sub-contractor 'and, therefore, does not meet the eligibility criteria to access VET funding.

Other Training Used by Employers

Extensive training is undertaken outside of the nationally recognised accredited training system and is not usually acknowledged through a qualification or credential[25]. The extent of unaccredited training is unknown as it is not publicly recorded or consolidated, an issue likely exacerbated by it being more prevalent in industries with smaller organisations, which tend to have less formal record-keeping[26], and a looser labour market structure, as in agriculture, forestry and fishing[27]. The last wide-scale national survey to report on training outside of the national system was the Australian Bureau of Statistics' 'Employer Training Expenditure and Practices', conducted in the financial year 2001-2002[28]. The case to repeat this extensive survey remains compelling.

Australian Industry Group's 'Workforce Development Needs Survey'[29] reports that the main approach to meeting skills needs used by employers is retraining existing staff on-the-job, and that there has been a significant increase in the strategy of employing workers with basic skills – often new entrants to an industry – and then upskilling them. The unaccredited or informal training that is delivered can also be used to complement and enhance employees' VET learning[30].

In the seafood industry, besides technical roles, a significant workforce is employed to undertake general roles, such as clerical and administrative work, packing, and delivery vehicle and truck driving. The sector also employs people for a range of other tasks, such as technicians and trade workers and production managers. For most technical skills and specific knowledge required in seafood industry sectors, learning occurs on-the-job through workforce development activities provided by employers, with the skills generally transmitted from the owner/operator to the crew or workforce. On-the-job training occurs because gaining industry-specific qualifications before employment commences remains a limited choice among young people and other potential new entrants. Table 2 below shows results from NCVER's 2019 'Survey of Employers' Use and Views of the VET System'[31], which found that around 40% of 'agriculture, forestry and fishing' employers (including in aquaculture) use unaccredited training (a program of structured training or unstructured, on-the-job instruction), which is roughly double the proportion who use nationally-recognised training.

Table 2: Use of the VET system and unaccredited training in the last 12 months by employer characteristics, 2017 and 2019 (%)

Industry (Base: all employers within industry)	Employers using nationally recognised training		Employers using unaccredited training	
	2017	*2019*	*2017*	*2019*
Agriculture, forestry and fishing	21.3%	21.5%	43.0%	41.6%

Source: NCVER, 2019, Australian vocational education and training statistics: employers' use and views of the VET system 2019

The reasons for this include the requirement for 'sea time' as a regulatory requirement, seasonality, casual employment, uncertain career paths or lack of knowledge about pathways, the view that industry is relatively informal, few registered training organisations offering training opportunities, and the general seasonality of

[25] T. Griffin, 2016, *Costs and benefits of education and training for the economy, business and individuals*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/publications/publications/all-publications/2873>

[26] A. Smith, G. Burke, M. Long & T. Dumbrell, 2008, *Approaches to measuring and understanding employer training expenditure*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/__data/assets/file/0017/4508/nr05009.pdf>

[27] G. Moodie, A.L. Wheelahan, N. Fredman, & E. Bexley, 2015, *Towards a new approach to mid-level qualifications*, NCVER, Adelaide.

[28] Australian Bureau of Statistics, 2003, *6362.0 - Employer Training Expenditure and Practices, Australia, 2001-02*, viewed January 2020, <https://www.abs.gov.au/Ausstats/abs@.nsf/0/00D5FE2BE9FCA5B1CA256CFB008083B0?Open>

[29] Australian Industry Group, 2018, *Workforce Development Needs Survey Report – Skilling: A National Imperative*, AIGroup, Adelaide, viewed January 2020, <https://cdn.aigroup.com.au/Reports/2018/Survey_Report_WFDNeeds_Skilling_Sept2018.pdf>

[30] I. White, N. De Silva & T. Rittie, 2018, *Unaccredited training: why employers use it and does it meet their needs?*, NCVER, Adelaide

[31] NCVER 2019, *Australian vocational education and training statistics: employers' use and views of the VET system 2019*, NCVER, Adelaide.

work, amongst other reasons. Hence, external workforce supply for skilled jobs is consistently low in this industry. In these conditions, the responsibility for engaging young people and existing workers within the sectors, and in specialist training, resides solely with employers. Seasonal and overseas workers also play an important role in the sector, particularly in the low skilled work area and at peak harvest times.

Since the Federal Government reduced national funding programs for training in 2013, the level of nationally accredited training delivered to the industry has declined significantly. Between 2015 and 2018, government-funded enrolments dropped by one-third. (see Figure 2) From 2013, total VET activity in the industry has fallen further, which demonstrates the inadequacy of state-based government subsidies for supporting industry's training needs and the cost of training.

Figure 2: SFI Training Package enrolments and funding, 2015-2018
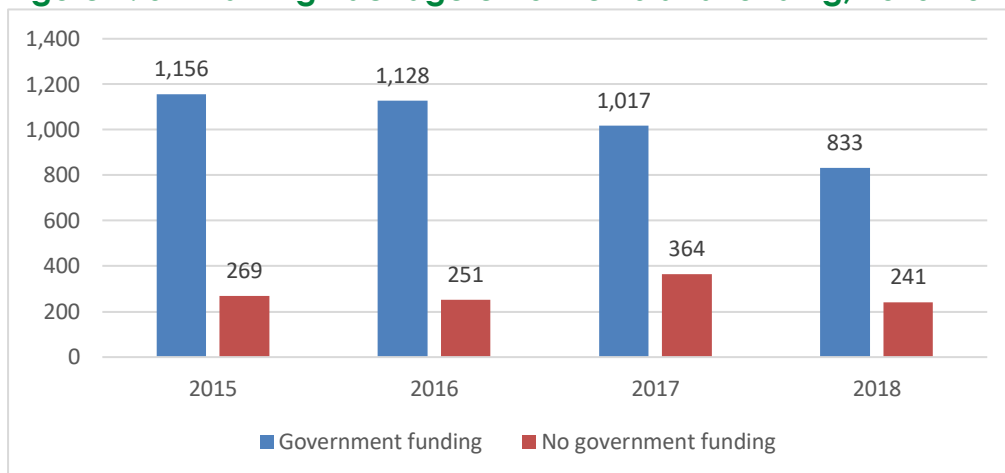
Source: NCVER, 2019, VOCSTATS: TVA program enrolments, 2015-2018.
*Please see the note under **Error! Reference source not found.** regarding presenting data prior to 2015*

In the aquaculture and wild catch industry, training and upskilling the current and future workforce involves high costs for employers and employees alike. Geographical and regional dispersion of businesses, and unavailability of registered training organisations (RTOs) with SFI19 qualifications on scope, contribute to the challenge of high-cost training.

Vast distances from workplaces to peoples' residence, and access to training providers for professional development, also impact on staff turnover. Other factors affecting industry's training activities include the new requirements for all workers on a vessel to be trained and skilled in managing environmental compliance. Industry stakeholders suggest that, because the MAR Maritime Training Package covers these skills, the SFI19 Seafood Industry Training Package should not be affected. Perhaps the captain or persons responsible for the crew, rather than all personnel on the boat, need to meet the new requirements.

The seafood industry has also identified a range of strategies that could benefit its workforce development and training. Opportunities exist for businesses to cultivate a workplace culture that supports young, savvy employees who value training and have higher expectations than their predecessors; however, this can also be impeded by challenges associated with operations in RRR locations, as in other industries on this front.

Many skills are best learnt on the job due to the nature of the specific skills formation and the needs of learners in employment. The current system could focus on workers and on the job learning, but instead focuses on RTO delivery. The AQF has led to greater emphasis on formal education and training at the expense of formal competency assessment and certification, including industry, informal and non-formal training and learning. The systemic focus on RTO delivery is exacerbated by the lack of industry involvement across the whole system, with industry roles mainly confined to the skills identification element of the system. While industry is often asked to promote the formal VET system (RTO learning), this is often at odds with the views and requirements of industry which prefers a more flexible approach to vocational learning centred on the workplace.

Factors that Lead to Training Outside the National System Include:

- Employer needs, the type of training they are looking for, training content and time available
  - While the national system may assist with long-term, entry-level training, and upskilling, other training is used for internal change management, introduction of new systems, manufacturer training, training from industry associations and other purposes
- Often employers are forced to "march to the beat of the drum" of RTO capability/availability, and what is funded
  - RTOs need to run viable operations (and businesses) and may have scheduling requirements that don't fit within employer needs, especially in the case of small to medium sized businesses which have less volume to appeal to RTOs.
- There is a systemic issue requiring relevant bodies to support a different way of thinking about apprenticeships and traineeships [see section 8], as well as the urgent need to address availability and funding.
- Foreign workers may not have economically viable access to accredited training if they are not permanent residents
- TAFE Enterprise[32] found that the greatest barriers to businesses facilitating formal staff training were the time employees spend away from their usual work, a lack of training budget and low staff motivation to participate.
- Multiple publications[33, 34, 35, 36] report that employers find it difficult to source information about qualifications and establish which training providers offer flexible packaging and delivery. This can create an aversion to attempting to further navigate the VET system.
- NCVER[37] note that employers are less concerned about who provides training, and whether it is accredited, because they focus more on the perceived relevance of the training to meeting their needs. Mawer and Jackson[38] established that many employers are more comfortable and satisfied with unaccredited training, citing flexible structures, shorter durations, and a focus only on relevant equipment and workplace practices. In this light, NCVER[39] found that "*employers have consistently rated satisfaction with unaccredited training significantly higher than with nationally recognised training and with the training to apprentices and trainees provided through the VET system*".
- According to Smith et al.[40], unaccredited training is often preferred by organisations with a lower level of workforce skills. These include smaller businesses, which may have less of a culture of 'professional development', perhaps without established human resources procedures, and a greater proportion of seasonal workers in whom there is less of an imperative to invest. Conversely, large-scale businesses may have human resource and training departments through which bespoke, unaccredited training materials are developed to suit immediate company needs.

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[32] TAFE Enterprise, 2018, *Skills and Australian business report 2018*, viewed January 2020, <https://www.tafensw.edu.au/documents/60140/86282/TAFE+Enterprise+Training+Report.pdf /bf500d82-3956-2ed5-5b39-b80d9c090dd5>

[33] M. Cully, 2005, *Employer-provided training: findings from recent case studies – at a glance*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/employer-provided-training-findings-from-recent-case-studies-at-a-glance>

[34] T. Griffin, 2016, *Costs and benefits of education and training for the economy, business and individuals*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/publications/publications/all-publications/2873>

[35] A. Smith, G. Burke, M. Long & T. Dumbrell, 2008, *Approaches to measuring and understanding employer training expenditure*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/__data/assets/file/0017/4508/nr05009.pdf>

[36] C. Shah, 2017, *Employers' perspectives on training: three industries*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/research-and-statistics/publications/all-publications/employers-perspectives-on-training-three-industries>

[37] I. White, N. De Silva & T. Rittie, 2018, *Unaccredited training: why employers use it and does it meet their needs?*, NCVER, Adelaide

[38] G. Mawer & E. Jackson, 2005, *Training of existing workers: issues, incentives and models*, NCVER, Adelaide, viewed January 2020 <https://www.ncver.edu.au/__data/assets/file/0014/5144/nr3017.pdf>

[39] I. White, N. De Silva & T. Rittie, 2018, p.12, *Unaccredited training: why employers use it and does it meet their needs?*, NCVER, Adelaide

[40] A. Smith, G. Burke, M. Long & T. Dumbrell, 2008, *Approaches to measuring and understanding employer training expenditure*, NCVER, Adelaide, viewed January 2020, <https://www.ncver.edu.au/__data/assets/file/0017/4508/nr05009.pdf>

Enrolment Levels

Please note: NCVER's database, VOCSTATS, only displays enrolments for the years 2015-2018 at present. This is partly because it only became mandatory for RTOs to report their training activity from 2014. NCVER have now stated that "2014 was a transition year" and that only data from 2015 is considered reliable. This Industry Skills Forecast Annual Update, therefore, presents only data for the years 2015-2018 because many RTOs did not report their activity in 2014, and combining new and old datasets could result in spurious trends being shown.

Systemic Challenges Causing Low Enrolments

The Aquaculture and Wild Catch (AWC) IRC faces competing priorities regarding the standards that govern its activities and the ministers' objective to delete qualifications with low/no enrolments. The IRC is required to support "nationally consistent qualifications that reflect the skills and knowledge required to successfully operate in a particular occupation", while training products must reflect "occupational skills needs of an industry, or a group of industries, to facilitate employment and vocational outcomes for individuals"[41]. Thus, the IRC's role is to engage with industry to describe current (and future) occupational skills standards, and *not* to ensure formal RTO enrolments within the VET system.

Furthermore, enrolment volumes have very little relationship to the criticality of skills to different sectors, or the value of those skills to the wider economy, nor the risks to society of not having properly trained workers in specific niche occupations or industry activities. The COVID-19 pandemic demonstrates that, while certain *SFI Seafood Industry Training Package* products may have low enrolments, they are essential to Australian society because they describe the skills and knowledge required for delivering products essential to the food supply chain.

New units are developed to meet new ways of working but, at the same time, it is not advisable to delete units that describe older methods of work that are still in use (but which cannot be incorporated into the new products), whether in workplaces, to provide training or as a guide for businesses who utilise them to create and maintain job descriptions or standard operating procedures.

RTOs choose to deliver units based on viability, local markets and the availability of appropriate people and resources. As a result, the AWC IRC believes that many units are underutilised despite reflecting current skills within industry. This issue is magnified by the rapid pace of change in technology and infrastructure, which can be readily adopted by some market leaders but will take time before they can be adopted by other market entities, especially small to medium businesses. A lack of delivery against any specific group of units or qualifications should not always be seen as a signal that these units or qualification are unwanted and should be deleted. It may be a signal that identifies that the system places unreasonable demands upon RTOs which have consequently withdrawn from delivery in these areas.

The IRC understand the imperative to reduce the numbers of qualifications and units within the system overall, as RTOs cannot be expected to keep up with an ever-expanding list of offerings. On the other hand, the retention of current skills within the system provides significant flexibility for RTOs to meet local industry needs, while also retaining the accurate description of current skills.

Skill sets development is becoming more prevalent and, in the current environment, easier to achieve for an IRC. Discussions are advancing in the NT to ensure that Rangers have the necessary skills to operate in dual roles (land and sea) where appropriate. The Northern Land Council is negotiating with the Fisheries Department over the appropriate pathways necessary for this to occur.

The evidence based on reports from employers, industry members' associations and other stakeholders indicate that the reasons for low and no enrolments include:
- RTO Delivery issues, and in particular the inability to find RTOs to deliver in regional areas, and the lack of available, fully qualified assessors in various work sectors. This is an enormous barrier for seafood businesses located in RRR areas.

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[41] Australian Industry and Skills Committee, 2019, pps.4-5, *Industry Reference Committees: Operating Framework for the Development of Training Packages*, viewed February 2020, <https://www.aisc.net.au/sites/default/files/documents/IRC%20Operating%20Framework%20-%20201912_0.pdf>

- For example, the Australian Prawn Farmers Association is assessing RTOs' ability to deliver Certificate II and III in Aquaculture in Queensland, let alone nationally, in the context of delivery barriers.
- The NT Fisheries Department is searching for an RTO to deliver training in Fisheries Compliance qualifications now that Australian Maritime and Fisheries Academy have retracted their NT operations and are now only operating in South Australia.

- RTO Delivery issues related to the costs of delivery of formal training, and in particular the need to bear the expenses of assessment and training materials, on top of very significant capital expenditure and expenditure on compliance, especially relating to industry regulation and safety requirements.
- Areas where meeting regulatory, licensing or "ticket" requirements within the seafood industry is impacted by the legislation by the peak regulatory body however this is another Training Package (MAR).
- The use of non-accredited training, either to address delivery issues or to enable timely upskilling of industry participants (especially to avoid attempting to navigate the complexities, difficulties and expense of Recognition of Prior Learning (RPL) because there is no funding element regarding RPL).
- The outdated state of the Training Package prior to recently approved updates, and the need to be able to deliver the new training, which is being hampered by delivery issues (included those noted in this section).
- An industry-wide inability to attract new (especially younger) participant workers to the industry, especially in the occupations that are related to VET qualifications.
- There is limited scope for the introduction of online and virtual training, and work experience is critical to delivery of the Training Package: This makes the continuing delivery of the training more expensive and less attractive to RTOs, a situation that will not change for some considerable time regardless of improvements in technology.

Training Package Products that Should be Retained

There are various reasons why a qualification may appear as 'low enrolment' but should be retained.

Please note, all enrolment figures below are inclusive of the current and any superseded versions of qualifications where there is data provided by NCVER. This is to more accurately assess demand for, and uptake of, a particular occupational skill need.

Qualifications recently reviewed/updated

All 14 SFI qualifications have been reviewed and redeveloped, and were released on 21st June 2019. NCVER data has only been released up to the end of 2018, and the AWC IRC advises that it can take up to two years for RTOs to develop training and assessment materials and get a new qualification on scope. As such, any qualification released after 01/01/2017 cannot yet be assessed as 'low enrolment' because there has not been sufficient time to analyse RTO/industry supply and demand.

However, demand may reasonably be expected to rise when a qualification has been significantly updated to meet industry needs (ascertained through extensive consultation regarding current and future skills and occupations). For example, the *Certificate IV in Aquaculture* is now considered to be reflective of current industry practices and occupations. It is therefore expected to attract a wider audience over the next few years and that businesses will now be seeking employees with this qualification.

Table 3: Qualifications recently reviewed/updated

Current Qualification	Enrolments				Release 1 Current Qualification
	2015	2016	2017	2018	
SFI30119- Certificate III in Aquaculture	426	439	428	442	21/06/2019
SFI20119- Certificate II in Aquaculture	502	500	413	300	21/06/2019
SFI20219- Certificate II in Fishing Operations	172	115	160	92	21/06/2019
SFI10119- Certificate I in Seafood Industry	134	98	126	53	21/06/2019
SFI40219- Certificate IV in Seafood Post Harvest Operations	7	88	68	43	21/06/2019
SFI30219- Certificate III in Fishing Operations	27	0	17	37	21/06/2019
SFI20419- Certificate II in Fisheries Compliance Support	0	33	41	33	21/06/2019
SFI30419- Certificate III in Fisheries Compliance	8	28	32	29	21/06/2019
SFI30319- Certificate III in Seafood Post Harvest Operations	71	34	18	22	21/06/2019
SFI50219- Diploma of Fisheries Compliance	12	9	16	17	21/06/2019
SFI50119- Diploma of Aquaculture	38	28	56	10	21/06/2019
SFI40319- Certificate IV in Fisheries Compliance	2	2	0	3	21/06/2019
SFI40119- Certificate IV in Aquaculture	2	1	0	3	21/06/2019
SFI20319- Certificate II in Seafood Post Harvest Operations	28	2	0	0	21/06/2019

Source: NCVER VOCSTATS, TVA program enrolments 2015-2018

Industry leadership, succession planning and technological advancement

Several SFI qualifications are intended for job outcomes in leadership and management roles. As the seafood industry has an ageing workforce and is struggling to attract the next generation of workers, the perceived importance of these qualifications will likely be enhanced as succession planning becomes increasingly vital for the continuation of operations. The Tasmanian Seafood Industry Council has identified business rationalisation, succession planning, the adoption of new technologies and complying with complex policies and legislation as key skills for the future of the industry[42]. As such, qualifications such as the Certificate II in Fisheries Compliance Support, Certificate III in Fisheries Compliance, Diploma of Fisheries Compliance and Diploma of Aquaculture are likely to be in higher demand.

Part of the emerging need for a new generation of leaders is to ensure that operators keep pace with rapid technological advancements. An accelerating rate of technological change requires *greater* development of new and more complex skills and knowledge, which is at odds with the trend of declining formal training delivery. In part, there is a supply/demand misalignment due to RTOs' struggles to deliver training on the full range of technologies when they are used by industry only sporadically. Certainly, large businesses such as Huon and Tassal in Tasmania have already implemented extensive technologies across all their practices and, as these technologies become more mainstream, smaller operators have started to invest accordingly. The emergence of new leaders and the adoption of new technologies is likely to go hand-in-hand, to the benefit of the industry as a whole.

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[42] Tasmanian Seafood Industry Council, 2017, *5-10 Year Strategic Workforce Profile*

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Reasons for Non-Completion

The AWC IRC suggests that it is likely that the AISC has access to more accurate and timely information concerning these issues. The IRC would be interested in obtaining any information from exit surveys and other sources that may be available to RTOs or NCVER, though not to the IRC.

In Skills for Victoria's Growing Economy Issues Paper[43], published in March 2020, it is identified that:

> *"While completions in VET are low, the reasons for this are varied. A much better understanding of the drivers of non-completions is needed to inform an effective policy response."*

There is a critical concern over attracting the next generation of workers to industry training and demonstrating potential occupation pathways to them. While the data suggests low 'success' rates in the SFI Training Package (shown in Table 4 below), more research is required to establish the true extent of course non-completion issues[44].

It is widely believed throughout the VET sector that state- and territory-based funding models play significant roles in non-completion figures. Funding is often only available to RTOs when learners enrol in full qualifications, even when their intent is to achieve competency in one or a cluster of units for specific work purposes. Learners will cancel the qualification after completing these units, having achieved their objective, but will be recorded as a non-completion against the full qualification; they will be recorded as a 'failure' when in fact they – and potentially their employer – are satisfied customers.

Table 4: Completion rate

Training Package	Completion Rate (2017)
Seafood Industry (SFI)	54.3%

Source: NCVER, private data request

Certainly, as 90.3% of SFI Training Package graduates in 2018 were 'satisfied with the overall quality of training' and 78.0% 'achieved their main reason for training'[45], this suggests that non-completions are a far more complex issue than is implied by the completion rates alone. For instance, if the purpose of vocational training is to obtain employment, achieving this aim prior to completing a qualification may lead learners to discontinue their formal education.

Purpose for Completing Qualifications and Skill Sets

The AWC IRC does not have access to RTO-submitted AVETMISS data that would allow it to track SFI enrolees' 'study reason' and collate statistics on those who complete qualifications or skills sets. It can, however, access NCVER's 'VET graduate outcomes' data visualisation tool, which uses data sourced from the National Student Outcomes Survey (which, by its nature, collects data on students' retrospective reflections).
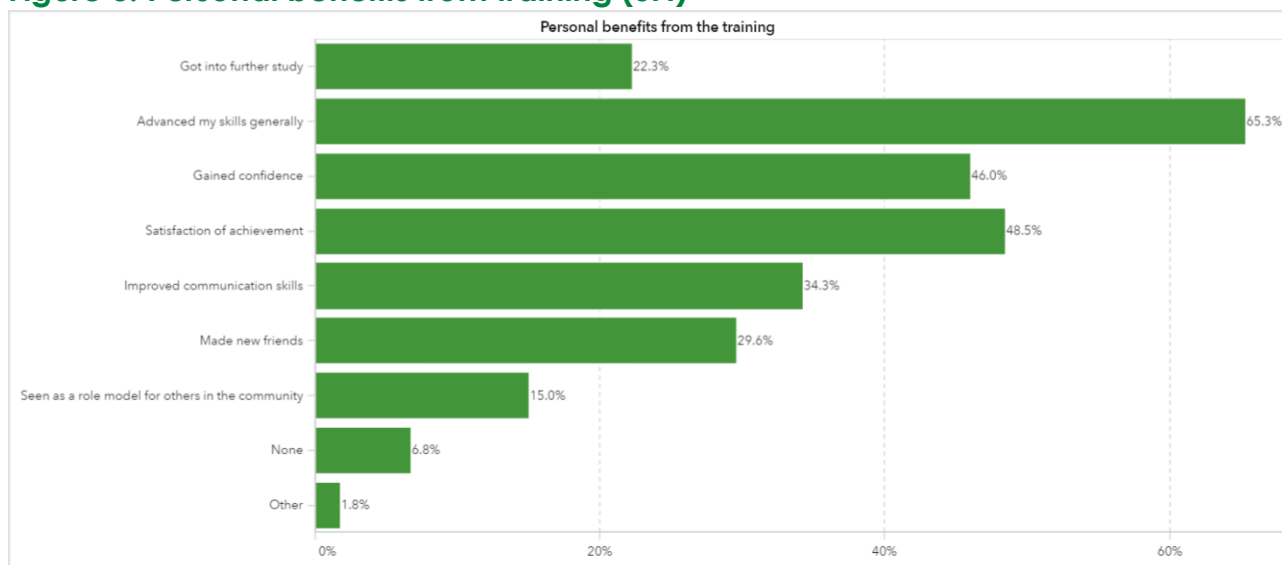
Of SFI graduates, 78.0% achieved their main reason for training (although 'reasons for study' are undefined). Graduates perceived personal benefits after their training, including:

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[43] Skills for Victoria's Growing Economy, 2020, p.31, *Skills for Victoria's Growing Economy Issues Paper*

[44] Building on work by NCVER, such as: A. Bednarz, 2014, *Understanding the non-completion of apprentices,* NCVER, Adelaide.

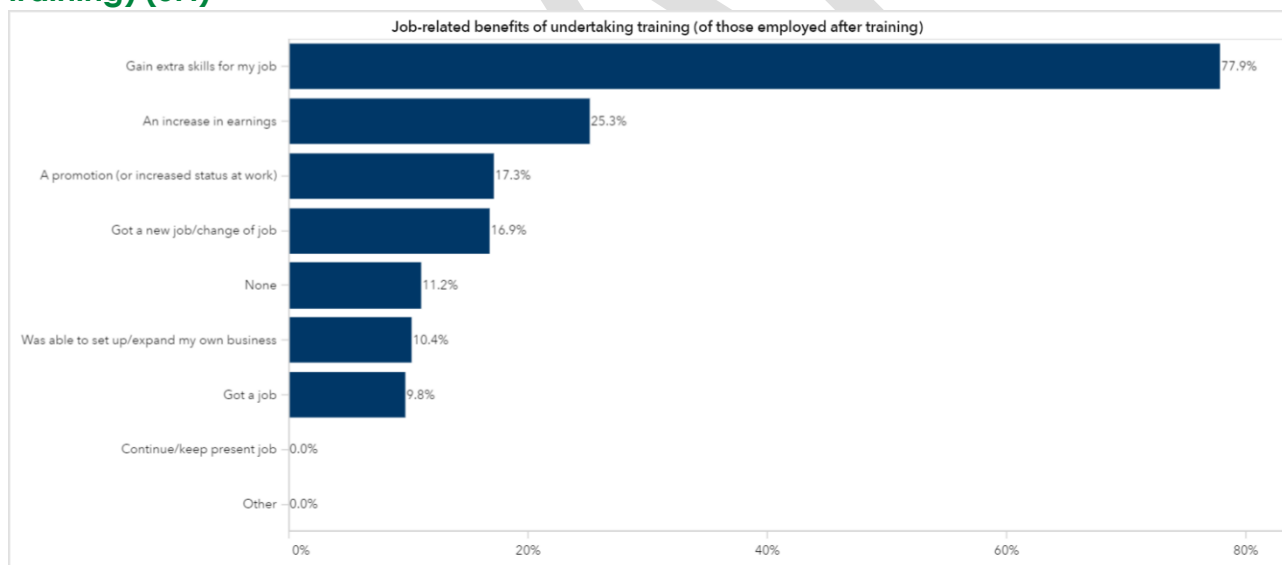[45] NCVER, 2019, *VET graduate outcomes*, SAS Visual Analytics

Figure 3: Personal benefits from training (SFI)

Personal benefits from the training

Benefit	Percentage
Got into further study	22.3%
Advanced my skills generally	65.3%
Gained confidence	46.0%
Satisfaction of achievement	48.5%
Improved communication skills	34.3%
Made new friends	29.6%
Seen as a role model for others in the community	15.0%
None	6.8%
Other	1.8%

Source: NCVER, VET graduate outcomes

The job-related benefits of undertaking training (of those employed after training) perceived by SFI graduates are as follows:

Figure 4: Job-related benefits of undertaking training (of those employed after training) (SFI)

Job-related benefits of undertaking training (of those employed after training)

Benefit	Percentage
Gain extra skills for my job	77.9%
An increase in earnings	25.3%
A promotion (or increased status at work)	17.3%
Got a new job/change of job	16.9%
None	11.2%
Was able to set up/expand my own business	10.4%
Got a job	9.8%
Continue/keep present job	0.0%
Other	0.0%

Source: NCVER, VET graduate outcomes

Despite recent improvements in NCVER data[46], there are many areas in which a higher level of detail would facilitate more nuanced analyses. For example, future data releases on graduates could include data so that they can be assessed according to variables such as their Training Package qualification and 'student remoteness region' to allow comparison of outcomes in major cities, regional and remote areas.

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[46] COAG Standing Council on Tertiary Education, Skills and Employment (SCOTESE) agreed to the introduction of mandatory reporting of nationally recognised training activity from 2014 onwards. Under this mandatory reporting, all Australian training providers (excluding those exempted by regulators) delivering nationally recognised training to students, either in domestic or in overseas locations, are required to report their training activity to NCVER.

Cross-Sector Units

Please note that this question only applies to the units developed under AISC cross-sector projects, not to imported units.

During the current projects we are investigating the application of cross-sector units as part of the two SFI projects for teamwork theme.

Changes to Skill Requirements

New methods of work and technologies are already operating in the workforce and will emerge more commonly in the future in the industry, especially in the aquaculture sector as we are seeing now.

Medium and large sized enterprises are already adopting un-crewed vessels and vehicles to evolve their operations which means roles are evolving also. The IRC identified this as a skills gap in 2019 and a project endorsed by the AISC is currently progressing.

Technology is being used for work previously completed manually, including feeding and diving operations, on-deck vessel work, harvesting, hatchery and sample collections.

The Fishtech and Aquabotics Project is consulting with industry across aquaculture and wild catch to identify current and future changes to work and ensure the national training package can accommodate the new 'now' and 'tomorrow' work functions.

Project developments in technology are affecting many current roles and new roles emerging. Large employers in the aquaculture sector are already in this changing space and instrumental in the project development as is key commercial operators with experience in autonomous, un-crewed and remote vessel/vehicle operations, scientific testing and compliance.

Apprenticeship and Traineeship Barriers

Despite the strong employment prospects, apprenticeship and traineeship commencements have been in decline across Australia in most vocational sectors. Apprenticeship commencements in the *SFI Seafood Industry Training Package* bucked this trend in 2017 and 2018, though overall figures remain modest.

Figure 5: SFI apprenticeship commencements
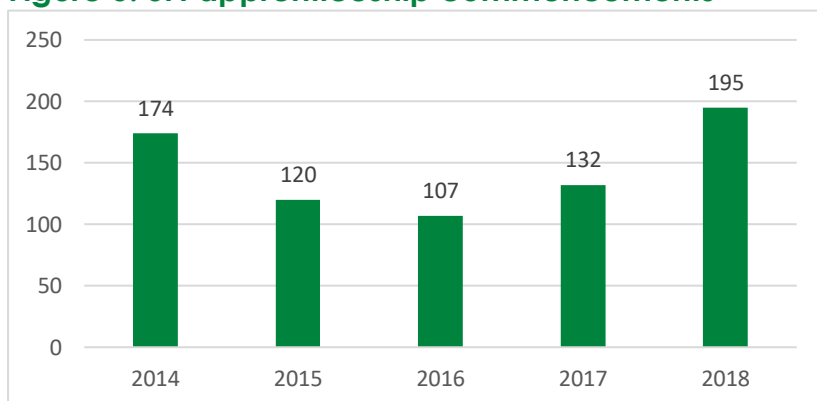
Source: NCVER VOCSTATS: Apprentices and trainees

The Government of Western Australia[47] have identified barriers to the uptake of apprenticeships, including:

- Apprenticeships and traineeships are not widely promoted or understood by young people and the community.
- The VET sector is misunderstood and undervalued by the community, schools and employers.
- There is an absence of promotion and marketing of apprenticeships and traineeships in the wider community.
- Young people need to receive quality career advice linked to labour market information.

The funding of VET influences the training being offered in industry sectors. Several state governments across Australia have established priority courses in areas of industry skills shortages for eligible candidates. A numbers of state government funding arrangements have changed, including withdrawing funding from some Certificate I or II qualifications, traditionally used as an introduction that exposes young people to the industry, while funding Certificate III and higher qualifications.

Many employers are having difficulties accessing funding for apprenticeships and traineeships due to:

a) The decreases in available funding or low incentives offered by the Commonwealth government.

b) Increased requirements relating to reporting and administration.

c) Having to meet RTO training requirements, especially dates for off-the-job training, which may not align with the rhythms of industry.

   i. Regional employers require greater flexibility, particularly around the scheduling of block release for apprentices.

d) Employers do not understand or are unaware of the training options available to them.

e) Lack of flexibility in apprenticeship and trainee models.

f) Attracting young people into apprenticeships and traineeships.

g) Eligibility: 'deck hands' are classified as 'sub-contractors' under their employment conditions and are therefore ineligible under apprenticeship programs.

There is a systemic issue requiring relevant bodies to support a different way of thinking about apprenticeships and traineeships. It is increasingly important as workplace models designed for major cities continue to fail in RRR areas and fee-for-service models are evolving and proving to be relevant in these areas. Addressing this requires greater flexibility in concepts of supervision, workplace learning, self-directed learning and the nature of pathways to apprenticeships and traineeships.

One relevant way to enable this approach is through supporting and working with a national network of RTOs who are committed to servicing the industry. A key aspect of this would be through the IRC supporting the development of national assessment tools and associated resources. This would enable more economically efficient application of skills training to national standards across all jurisdictions, including the transferability of assessors and trainers across jurisdictions and the use of workplace-based staff in the gathering of assessment evidence. Experienced individuals within the industry has expressed an interest in obtaining necessary qualification to be able to deliver training within and for the industry. Individuals may hold a relevant Certificate IV in TAE, but may not necessarily be in an auspice arrangement with an RTO, which is required in the present environment to issue statement of attainments or competency.

Many businesses are finding a reduced visibility for ongoing future demand for services and products with pipelines for work often less than three months. This is as a result of the rapidly changing economy and consumer preferences; incoming workflows are less secure and more volatile. This environment is not favourable to taking on trainees or apprenticeships with three to four-year learning programs.

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[47] Government of Western Australia, 2018, p.11, *Strategies to grow apprenticeships and traineeships in Western Australia*, State Training Board

Other Relevant Activities

The AWC IRC identified the imperative for an Indigenous research project in 2019 and, in support of the proposal, wishes to emphasise its importance not only to the seafood industry but for numerous job roles and occupations associated with the Agriculture, Horticulture, Conservation and Land Management Training Package.

Building skills and the capacities of industry to engage in partnership building with Indigenous communities are key strategies and recommendations of the recent CRCNA report[48] to ensure an inclusive and effective seafood workforce.

Section B: Ongoing Consultation

Details of industry consultation undertaken by IRC members and Skills Impact, including with rural, regional and remote stakeholders will be included in the final document that is submitted to the Australian Industry and Skills Committee (AISC). Once submitted, the final document will also be published on the Skills Impact website.

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[48] J. Cobcroft, R. Bell, J. Fitzgerald, A. Diedrich & D. Jerry, D., 2020, *Stage 1 report: Northern Australia Aquaculture Industry Situational Analysis*, James Cook University,Townsville, Qld.

Section C: Proposed New Work

2020–2021 Project Details

Project 1: Indigenous Consultation for Annual Updates & Future Projects (Research & Development Joint Project)

Submitted on behalf of:

- Aquaculture and Wild Catch Industry Reference Committee
- Amenity Horticulture, Landscaping, and Conservation & Land management Industry Reference Committee

Skills Service Organisation: *Skills Impact*
Proposed Partner: *To be confirmed*

Purpose

To undertake research and development work to improve long-term skills outcomes for Indigenous participants in the Australian workforce and the VET system, and create greater opportunities for industry training and skills, including through more effective training package product development.

Scope

- Identify potential solutions which create opportunities for increased Aboriginal and Torres Strait Islander participation in the workforce and build the capacity of Indigenous organisations to improve training and employment outcomes in remote Indigenous communities, which can be delivered in part through the *AHC Agriculture, Horticulture and Conservation and Land Management* and *SFI Seafood Industry Training Packages.*
- This work and its outcomes could be seen as a pilot for best practice for other sectors to benefit from.
- Develop evidence of current qualification utilisation, and employment of Indigenous people with and without VET qualifications, including the use of non-accredited and accredited training outside of training packages, and underlying reasons for usage.
- Identify current skills training outside the national system for the aquaculture and wild catch (AWC) and amenity horticulture, landscaping, and conservation and land management (AHLCLM) sectors and understand why it is used and trusted without it being linked to VET and national standards.
- Develop evidence relating to enrolments in specific Indigenous programs in the AHC Training Package, especially in the Aboriginal-Sites Work (AHCASW) and Indigenous Land Management (AHCILM) unit sectors.
- Work with Indigenous organisations to develop guidance to initiate effective consultation for future training package projects.
- Create guidance for future projects for VET training to help industry develop joint ventures and employment and training opportunities with Indigenous communities and organisations.
- Recommendations from the Indigenous communities and organisations relating to the potential for developing commercial, customary AWC and AHLCLM activities, including issues relating to the sharing of customary traditions and the opportunities that may exist to support development (focused on the skills and training needed to create outcomes) in areas such as fishing and land management (including fire).

National Policy Project Drivers

COAG Skills Council Terms of Reference Priority Actions, Released October 2019[49]:

- Ensuring VET programs and services strengthen opportunities for Aboriginal and Torres Strait Islander learners to participate in the workforce and community and build the capacity of Aboriginal and Torres Strait Islander organisations.

COAG Skills Council Vision for VET, Approved in August 2019[50]:

- Provides workforce skills and relevant, up-to-date qualifications that are well matched to the evolving opportunities and challenges of Australia's modern economy.
    - o The IRCs note that "Australia's modern economy" includes the culture-based (or hybrid) economy which continues to develop nationally.
- Delivers high-quality education and training for all learners in recognition that VET and higher education are equally valued pathways into employment.
- Delivers positive opportunities and outcomes for all Australians regardless of geographic, social or personal circumstances. This includes access for learners in regional, rural and remote areas, and to foundational skills when individuals need them.

COAG VET Reform Priorities, Identified in September 2019[51]:

- Accessibility: ensuring that all prospective learners and employers can access suitable information and training when and where it is required, including a specific focus on supporting access for disadvantaged Australians.

Closing the Gap[52] Policies and Targets:

- The national Indigenous employment rate target to halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (by 2018).
    - o The IRCs note the employment rate for Indigenous Australians has remained stable over the past decade in spite of new approaches, including Training Package development.
- The target to halve the gap for Indigenous Australians aged 20–24 in Year 12 attainment or equivalent by 2020.
- Addressing the main points of reform from the Coalition of Peaks: Developing formal partnerships between communities and the government at all levels; growing Aboriginal and Torres Strait Islander community-controlled services; and improving mainstream service delivery.
- Meeting the new framework for Closing the Gap which includes enabling more community control and embeds shared decision-making.

Industry Project Drivers

- Improving Australia's productivity by identifying delivery options for training package products that support the multiple industry strategies developed in the last five years, including those arising from the Productivity Commission and national, state and territory government strategies.
- The creation of opportunities to develop enterprises, partnerships or agreements with Indigenous

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[49] Council of Australian Governments, 2019, *Council of Australian Governments Skills Council Terms of Reference*, viewed March 2020 <https://docs.employment.gov.au/documents/council-australian-governments-skills-council-terms-reference>

[50] Council of Australian Governments, 2019, *Council of Australian Governments: Vocational Education and Training (VET)*, viewed March 2020 <https://www.coag.gov.au/sites/default/files/communique/vision-for-vocational-education-and-training.pdf>

[51] Council of Australian Governments, 2019, *Communiqué for the COAG Skills Council Meeting*, viewed March 2020 <https://docs.employment.gov.au/system/files/doc/other/skills_council_-_20_september_-_communique_20_sept_final.pdf>

[52] Australia Government, 2020, *Closing the Gap Report 2020*, viewed March 2020 <https://ctgreport.niaa.gov.au/sites/default/files/pdf/closing-the-gap-report-2020.pdf>

organisations and businesses, and within areas covered by Native Land and Sea Titles and Claims.

- The establishment of sustainable operations in Indigenous and isolated communities where there may be significant impacts on the economic health and training opportunities for local communities.
- Improving enrolment levels in qualifications, including those designed for Aboriginal and Torres Strait Islander people and ensuring up-to-date training for the culture-based economy.
- The development of larger and more stable workforces in regional, rural and remote Australia.

Not Business as Usual

This project will need additional support and does not come within the standard operating environment for IRCs and SSOs because:

- All available evidence collected over the last decade demonstrates that the "business as usual" approach is not working effectively enough for Indigenous people, especially those in remote and very remote communities.
- The current standards for the development of Industry Skills Forecasts and training package product do not appropriately allow for the enabling of greater community control or embed shared decision-making, critical elements identified in the updated Closing the Gap framework.
- The current standard scope of work for IRCs and SSO (other than those related to cross-sector projects) are designed for the purposes related to the skills needs of specific individual industries.
  - o While the IRCs recognise that a cross-sector project may be an option, the IRCs believe such a project would be too broad to be successfully undertaken in a timely and effective way, given the multiple issues and difficulties that apply to cross sector projects and in this space.
  - o The IRCs are looking to create long-term outcomes by identifying and implementing actions that can be more quickly tested for delivery of industry skills needs within the AHLCLM and AWC sectors (in line with design thinking, agile, LEAN and similar approaches).
- Governments and government bodies, including the AISC and NCVER, have devoted very significant resources to addressing the issues relating to the Indigenous workforce, and there is a need to find ways to improve outcomes through increased industry involvement and partnership development.

Proposed Project Deliverables

The IRCs have identified key project deliverables to be achieved during the first year of the project (recognising that any extension beyond the first year or any consequent work will need to be separately submitted for approval):

- Submission of a report with evidence addressing:
  - o Qualification and skill set utilisation
  - o Training outside of the national system
  - o The need for current qualifications with low enrolments
  - o Barriers to training, including to apprenticeships and traineeships, especially in remote and very remote communities.
- Guidance developed with Indigenous organisations to initiate effective consultation that specifically meets the needs of indigenous communities as identified by indigenous representatives for the future development of Training Package projects.
- Identification of potential solutions acceptable to Indigenous organisations to improve training and employment outcomes in remote Indigenous communities which can be achieved through training package standards, and which are within the responsibilities of the AWC and AHLCLM IRCs.
- Guidance for a future project for VET training to help AWC and AHLCLM organisations develop joint ventures and commercial opportunities with Indigenous communities and organisations.
- Recommendations from the Indigenous communities and organisations relating to the potential for developing commercial, customary AWC and AHLCLM activities, including issues relating to the sharing of customary traditions and the opportunities that may exist to support development (focused on the skills and training needed to create outcomes) in areas such as fishing, conservation and land management (including fire).

It is anticipated that the deliverables will include useful information for a range of IRCs.

Description

The proposed project is to undertake research and consultation to maximise the chances of successful future Aquaculture and Wild Catch (AWC) and Amenity Horticulture, Landscaping, and Conservation and Land Management (AHLCLM) projects aimed at expanding productivity, employment and economic development opportunities, open new and emerging markets, improve training and job outcomes (particularly in remote areas and Indigenous communities) and to upgrade industry skills in negotiations and partnerships with Indigenous business and community organisations in both the industry and training sectors.

Rationale

Both IRCs acknowledge the importance of Aboriginal and Torres Strait Islander (Indigenous) involvement in the development of all aspects of their industries.

The AWC IRC submitted a similar project for consideration by the AISC in 2019, which was not approved for implementation. The IRC requested additional consultation through 2019 (see below) and continues to believe that this is an important project given national and local aspirations relating to aquaculture, wild catch and seafood, and the specific focus of government policies and Indigenous organisations on Aboriginal and Torres Strait islander involvement in these sectors. The need for additional work relating to the ways that work and training is undertaken for and in Indigenous communities has been identified during consultations on the Fishtech and Aquabotics, and Work with Crocodiles projects.

The AHLCLM IRC included the review of two-unit sectors, AHCASW Aboriginal Sites Work and AHCILM Indigenous Land Management, as part of the unit sector approach to the review of the AHC Training package. In preparation for that project (and in the current review of the Conservation and Land Management qualifications), issues have arisen as to the use of qualifications, accessibility to training and the delivery of skills needs for Indigenous people and communities.

The AISC has issued new guidelines for Annual Updates to Skills Forecasts, which seek information, and specifically data and evidence, relating to:

- Qualification and skill set utilisation
- Training outside of the national system
- The need for current qualifications with low enrolments
- Barriers to training, including to apprenticeships and traineeships, especially in remote and very remote communities.

While there is a significant research base through the NCVER, government authorities, Indigenous organisations and research centres relating to Indigenous employment and education outcomes, these sources do not adequately identify solutions that can be implemented through the national training package system by industry, and are usually generic in nature rather than focused on industry segments, such as AWC and AHLCLM.

The importance of Indigenous involvement is not only reflected in industry experience and practices. In AWC, both the *2017 National Aquaculture Strategy*[53] and the *2017 Productivity Commission Inquiry Report into Marine Fisheries and Aquaculture*[54] highlight the mutually beneficial outcomes that can be achieved through improvements in relationships between industry operators and Indigenous communities. In November 2018, the Australian Government enacted legislation changing the Indigenous Land Corporation to the Indigenous Land and Sea Corporation, with a responsibility to help Indigenous groups with fishing licences, aquaculture and water allocations.

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[53] Department of Agriculture and Water Resources, 2017, *National Aquaculture Strategy*, Canberra, August.

[54] Productivity Commission, 2016, *Marine Fisheries and Aquaculture, Final Report*

Critical parts of the training package covered by AHLCLM IRC are qualifications and skill sets related to the Indigenous Rangers, Indigenous Protection Areas, Aboriginal sites work, and Indigenous land management activities, including fire. In 2018, the Federal Government announced an extension of funding for the Indigenous Rangers program to support 123 ranger groups until 2021, with an estimated workforce of almost 3,000 Indigenous Australians (approximately 750 Full Time Equivalent). In *Sustainable Land Sector Development in Northern Australia*[55] it was noted that approximately half of Australia's conservation estate was made up of Indigenous Protected Areas. The combined funding for programs related to Indigenous rangers and Indigenous Protected Areas is more than $830 million extending to 2023. States and territories have supported complementary and additional programs. During the debate to recognise the work of Indigenous Rangers in Federal Parliament on 9 September 2019, it was noted that:

"Rangers, due to their work, have high levels of wellbeing. Rangers use cultural knowledge and keep it strong. Rangers strengthen their communities. Rangers pass on knowledge to the next generation. Rangers learn and speak Aboriginal languages. Rangers' work is linked to individual rangers feeling healthier. Rangers are better off, their communities are better off, and the income is often shared. It is of national importance that we appreciate the role of these rangers in environmental protection across this nation. Whether it's in the large IPAs in the Central Desert or those on the coast, it's extremely important that the broader Australian community understands the value of First Nations ranger groups to this country. What they're doing is of benefit to all of us, and looks after and improves the national estate, and we should be very proud of them."

[Member for Lingiari, NT]

2019 Consultation

During 2019, Skills Impact on behalf of the IRCs continued consultation work. The methods used included personal meetings, discussions with Indigenous organisations, attendance at conferences for both presentations and informal discussions, and feedback received through Indigenous involvement in current projects, including the review of Conservation and Land Management qualifications, and the Fishtech and Aquabotics and Work with Crocodiles projects. Reviews of available research are also undertaken to complement the consultations.

While preliminary observations can be made based on the consultations, it is clear to the IRCs that additional work, through this research project, is required to properly identify and implement evidence-based approaches. Some of the preliminary observations from completed consultations are:

- Education, training and skills are critical for young Indigenous people, especially those parts of the system that retain young people in formal education at least until Year 12 – school-based traineeships and apprenticeships structured appropriately for Indigenous learners are a critical part of retaining these learners in the formal education system.
    - There is a critical economic and social need for training and employment that keeps young Indigenous people motivated, engaged and occupied in worthwhile learning and jobs, especially those that can contribute to community wellbeing.
- There is a view and acceptance that employers are in the best position drive identification of skills needs and training requirements, as they are the only ones who can guarantee jobs, however industry are rarely achieving this within the context of work in and for Indigenous communities.
- Native Title currently covers about 55% of the Australian land and sea mass, and is likely to cover more than 90% within the next three years, providing the opportunity for communities and nations to do business and undertake commercial development and activities.

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[55] J. Russell-Smith, G. James, H. Pedersen & K. Sangha, 2018, *Sustainable Land Sector Development in Northern Australia Indigenous rights, aspirations, and cultural responsibilities*, edited by Sustainable Land Sector Development in Northern Australia Sustainable Land Sector Development in Northern Australia.

- As Indigenous communities finalise title processes and are able to focus more on economic development, they are also encountering the need to change the way work is being done (including by non-Indigenous service providers) and the skills being used on their land and sea, especially in relation to conservation, land management and fishing in parks and protected areas.
- The job roles and functions being proposed for Indigenous Rangers (who obtain qualifications through the AHC and SFI Training Packages) continues to expand, with proposals to try to include additional land management, fisheries, aquaculture, fire and community health responsibilities.
  - A related issue is that Indigenous Rangers appear to be asked to engage in additional training, however almost all of this training is at trade level (Certificate II and III) or skilling at similar levels through Skill Sets without pathways higher level qualifications, despite clearly expanding responsibilities and expertise.
- Issues related to access to water, both offshore and onshore, are of increasing concern for industry and communities, and may require both policy approaches and training related to innovative access and delivery that comply with and respect the approaches of rights holders.
- Work in Indigenous communities is increasingly based on fee for service and gig economy approaches that may be more suited to local culture-based economies, and there is a need for different approaches to training access, support and delivery.
- There are an increasing number of schemes designed to support Indigenous people to live, be educated and obtain employment in cities and major regional centres, while remote communities and smaller regional centres are finding economic and skills development increasingly difficult, which may be resulting in reliance on local training which is not accredited, recognised outside the community, or quality-controlled.
- Working with and in partnership with Indigenous communities requires direct relationships, and this requires going to the communities first, to show respect and to establish trust – there is significant work to build relationships because of the history of broken promises and failure to deliver outcomes.
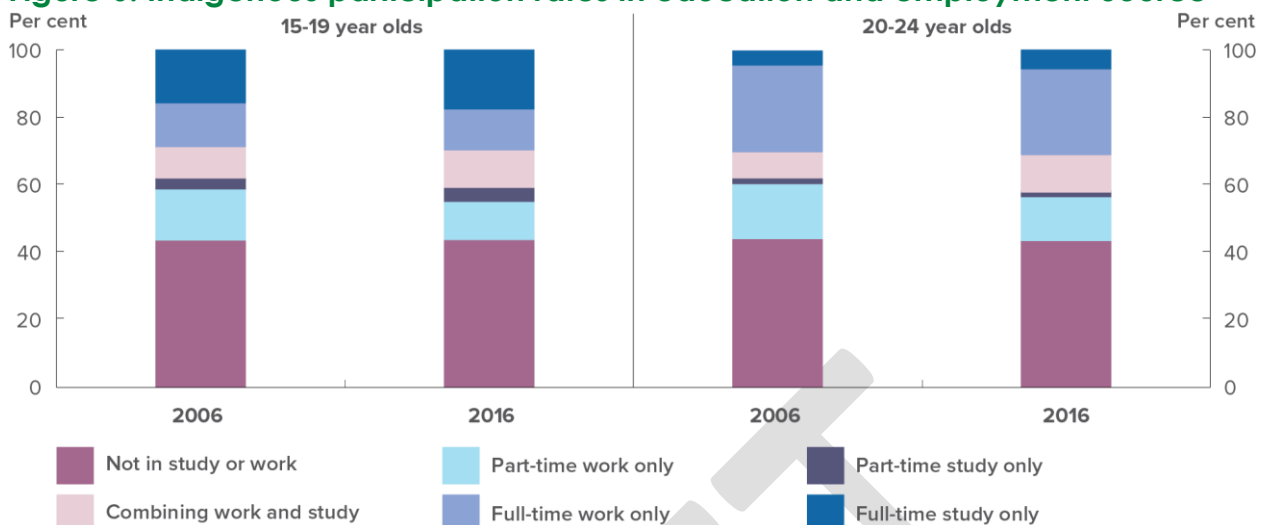
Closing the Gap 2020

In 2020, the Prime Minister confirmed to the parliament that "The Closing the Gap framework is moving toward a strengths-based agenda—one that partners with Aboriginal and Torres Strait Islander people, enables more community control and embeds shared decision-making."[56] The framework is currently being further developed with the assistance of the Coalition of Peaks, the body consisting of representatives of Australian Indigenous organisations.

Findings of concern to the IRCs include:
- The national Indigenous employment rate has not improved against the target to halve the gap in employment outcomes between Indigenous and non-Indigenous Australians within a decade (which was scheduled to be achieved by 2018).
  - The target is listed as 'not on track' nationally in the 2020 Closing the Gap report, as in previous reports.
  - The largest gap was in Very Remote areas where the Indigenous employment rate was around 49 percentage points less than the non-Indigenous employment rate. The smallest gap was in Major Cities (around 15 percentage points).
  - The IRCs note that the employment rate for Indigenous Australians has remained relatively stable over the past decade in spite of changes to approaches, including Training Package development.
- Between 2012–13 and 2018–19, the gap for attainment of Year 12 or Certificate II or above between Indigenous and non-Indigenous Australians aged 20-24 widened in all areas, except for Major Cities.
- At best, there are limited improvements in Indigenous participation rates in education and employment over a decade, in spite of changes to policy settings, and slightly falling rates in full time employment over that period (potentially due, in part, to changing work patterns).

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[56] Australia Government, 2020, *Closing the Gap Report 2020*, viewed March 2020
<https://ctgreport.niaa.gov.au/sites/default/files/pdf/closing-the-gap-report-2020.pdf>

Figure 6: Indigenous participation rates in education and employment Source

Source: Australian Government, 2018, Closing the Gap Report 2018, Chapter Four: Employment <https://www.pmc.gov.au/sites/default/files/reports/closing-the-gap-2018/employment.html>

The Coalition of Peaks[57] have identified main points of reform as requirements for the framework:

- Developing formal partnerships between communities and the government at all levels
- Growing Aboriginal and Torres Strait Islander community-controlled services
- Improving mainstream service delivery.

The IRCs hold the view that industry has a critical role to play in all of these areas, given that there are currently and will continue to be partnerships between communities and government related to employment, skills and economic development.

Barriers to Outcome Delivery

The IRCs recognises that there are very significant differences in approaches between industrial and Indigenous cultures, which have an impact in the VET sphere. For example, Altman and Fogarty[58] noted:

"Education needs to be tailored to serve the livelihood aspirations of Indigenous people participating in a hybrid and intercultural economy… Rather than providing mainstream education for futures in the market (sometime called the 'real') economy, consideration also needs to be given to educational innovation to meet diverse vocations needs in the hybrid economy."

Delivering outcomes identified by the COAG Skills Council, Close the Gap report and other national policy settings will require tailored training solutions that meet the needs of both the "real" economy and the "hybrid" economy. The information requirements outlined in the Annual Update for Skills Forecasts template by the AISC indicate the desire of the AISC to have greater understanding of the challenges.

There appear to be many issues from identification of skills needs through to training delivery, and it is clear that solutions need to be delivered, including those that can be achieved within the National Training Package

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[57] Coalition of Peaks, 2019, *Aboriginal and Torres Strait Islander Community Engagement on Closing the Gap: Changing the way governments work*, viewed March 2020 <https://www.naccho.org.au/programmes/coalition-of-peaks/have-your-say/>

[58] J. Altman & B. Fogarty, 2010, Indigenous Australians as 'No Gaps' Subjects: Education and Development in Remote Australia, in I.Snyder and J. Nieuwenhuysen (eds.), *Closing the Gap in Education? Improving Outcomes in Southern World Societies*, Monash University Publishing, 109-128.

Standards to meet overarching outcomes being guided by the AISC. While localised and tailored training delivery may produce better results to learners, there is a need to avoid entrenching disadvantage by failing to recognise achievement through a national qualification and by limiting graduate portability and mobility.

The IRCs would like to support the foundations for increasing Indigenous involvement in AWC and AHLCLM, and are considering projects that may support opportunities in areas such as:

- The development of enterprises, partnerships or agreements for activities within areas covered by Native Land/Sea Titles and Claims.
- The establishment of operations and remote operations centres in Indigenous and isolated communities where establishment may have significant impacts on the economic health and training opportunities for local communities.
- Commercial operations using customary methods to service markets through Australia and the Asia Pacific area.

Developing the opportunities to create the beneficial outcomes faces a number of barriers, including:

- Ensuring Indigenous involvement and "ownership" of projects for the greatest prospects of success.
- Addressing the results in remote Australian locations indicating high levels of non-completion of VET training through to qualification and the lack of connection between successful completion of training and employment outcomes[59].
- Addressing issues related to the delivery of training in remote areas, relating to both Indigenous VET and to meeting the needs of industry, especially those issues related to RTO availability and delivery.
- The difficulties for industries and Indigenous communities to obtain the information and skills needed to work together to create commercial and other opportunities.
- Addressing the lack of incentive for Indigenous students to participate in training in very remote areas where there is no labour market.

Previous consultative arrangements have been described as ineffective, including in the report into aquaculture by the Productivity Commission. Quoting the Northern Land Council[60], the report notes:

> "A number of participants considered that existing engagement is inadequate, and many Indigenous Australians are unable to participate in the design and implementation of fisheries regulations. While Indigenous Australians may be consulted on management decisions, 'frameworks for community engagement toward consent and decision-making processes remain strikingly absent'".

This means that there is already a cultural barrier that needs to be overcome to successfully consult with Indigenous communities on future Training Package projects. Further examples of barriers for Indigenous involvement includes commercial, regulatory and licensing arrangements, which are not aligned to traditional practices and requirements.

The Productivity Commission Report states[61]:

> "More fundamentally, experience in Australia has demonstrated that policy initiatives aimed at creating development and employment opportunities for Indigenous communities often fail because they do not incorporate the broader prerequisites for success. These include **closely involving the community in designing and implementing initiatives, as well as investing in education, training and broader capacity-building**." (emphasis added).

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[59] M. Ackehurst, R.-A. Polvere & G. Windley, 2017, *Indigenous participation in VET: understanding the research*, NCVER, Adelaide.

[60] Productivity Commission, 2016, p.179, *Marine Fisheries and Aquaculture, Final Report*.

[61] Productivity Commission, 2016, p.184, *Marine Fisheries and Aquaculture, Final Report*.

The same concepts are central themes running through guidelines and research relating to engaging with Indigenous communities, including principles for *Closing the Gap: Engaging with Indigenous Australia*[62], the Australian Government's guidelines for *Communicating with Aboriginal and Torres Strait Islander Audiences*[63], the National Health and Medical Research Council's guidelines for researchers and stakeholders for *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities*[64], the Australian Institute of Aboriginal and Torres Strait Islander Studies' (AIATSIS) *Guidelines for Ethical Research*[65], Ninti One's *Aboriginal Knowledge and Intellectual Property Protocol*[66], the Australian Government's *Protection of Indigenous Knowledge in the Intellectual Property System Consultation Report*[67] and many other examples.

These themes can be seen in NCVER research[68] that has identified factors critical to positive and improved outcomes for Indigenous Australians from vocational education and training. The relevant factors are:

- Community ownership
- Trusting relationships and partnerships with communities
- Respect for cultural knowledge and capacity
- The utilisation of local capabilities and aspirations
- Culturally aligned policies and practices.

Janet Hunt's paper for the *Closing the Gap Clearinghouse*[69] raises a particular issue of concern to the IRCs, when it identifies a factor that impedes success:

> "Hurried, one-off 'consultations' that are organised without **Indigenous input into their design, where the parameters for discussing the analysis of the problem and possible solutions are centrally determined and fail to take proper account of Indigenous aspirations, ideas of wellbeing, and social contexts**" (emphasis added).

From the perspectives of those working inside the National VET Training Package system, it may be seen to have significant flexibility. However, when trying to engage with outsiders to the system, there is a need to be open about the guiding frameworks, which include:

- COAG Skills Council Term of Reference, Vision and Strategies
- Ministers' priorities
- Training Package Standards
- IRC Operating Framework
- The extensive use of templates which must be completed to set standards.

Particularly from the perspective of Indigenous communities, work done from these starting points may be seen as taking place in a system designed without Indigenous consultation and precluding consultation suitable for Indigenous communities. Any consultations may justifiably be seen as constrained by centrally determined parameters that limit involvement, ownership and solutions.

This may also lead to viewing any solutions as being designed with a one-size-fits-all approach. Cuervo, Barakat

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[62] J. Hunt, 2013, *Closing the Gap: Engaging with Indigenous Australia - exploring the conditions for effective relationships with Aboriginal and Torres Strait Islander communities*.

[63] Australian Government, 2016, *Communicating with Aboriginal and Torres Strait Islander Audiences*

[64] National Health and Medical Research Council, 2018, *Ethical conduct in research with Aboriginal and Torres Strait Islander Peoples and communities: Guidelines for researchers and stakeholders*

[65] Australian Institute of Aboriginal and Torres Strait Islander Studies, 2012, *Guidelines for Ethical Research in Australian Indigenous Studies.*

[66] Ninti One, 2010, *Aboriginal Knowledge and Intellectual Property Protocol: Community Guide.*

[67] Australian Government, 2019, *Protection of Indigenous Knowledge in the Intellectual Property System Consultation Report*

[68] M. Ackehurst, R.-A. Polvere & G. Windley, 2017, *Indigenous participation in VET: understanding the research*, NCVER, Adelaide.

[69] J. Hunt, 2013, p.3, *Closing the Gap: Engaging with Indigenous Australia - exploring the conditions for effective relationships with Aboriginal and Torres Strait Islander communities*.

and Turnbull[70] identify many recent examples where the appearance of a one-size-fits-all approach failed. Even the use of terminology can cause issues: for example, the Queensland Government recommended the use of the term "negotiation" rather than "consultation" to ensure Indigenous communities are reassured that contributions are important and valued, and will lead to practical results.

From Training to Employment

NCVER research in 2017[71] indicates that improved participation rates of Indigenous learners in VET, even as there are improvements at higher levels (Certificate III and above), are not necessarily translating into employment outcomes, and this disparity is more acute in remote areas.

There are many issues that impact on the school-to-work transition of young Aboriginal and Islander people. Indigenous communities have cultural contexts, social norms and strong kin-based networks that are very different to non-Indigenous experience, and the failure to recognise this has led to frustrations[72]. These issues have some recognised effects: when Indigenous youths move away from their communities into urban areas, they find it more difficult to get work because they lose their kin-based networks and have limited skills and capacities to create new networks (the work of the Clontarf Foundation demonstrates how addressing this issue leads to improved employment outcomes); in remote communities, job outcomes are often achieved without qualifications due to the lack of labour market, and completion of qualifications is diminished; on-site training outside of the community (short or medium term) can deny access to traditional homelands and be difficult to undertake without interruption for traditional purposes.

Employers working with communities have experienced these issues, and while they have tried to adjust training to suit local conditions and requirements, they are often unable to access RTO delivery, particularly for assessment and credentialing purposes.

The IRCs, through consultations and experiences, believe there are indications that there are employers keen to employ trained and competent graduates, and who would prefer to work in partnership with Indigenous communities to ensure recognition of achievement through national qualifications. However, this does not seem to be happening in practice, and there is a need to ascertain clearer evidence as to the reasons behind this apparent discrepancy.

Changes in Job Roles, Workplace or Industry

Aquaculture and Wild Catch, and Conservation and Land Management are traditional activities of Indigenous communities. This is very different to most of the trades and industries in which VET training is offered, which were established in Australia post settlement.

AHLCLM and AWC industries are noteworthy and growing source of employment for Indigenous people, who already make up around three per cent of the labour force (higher than the general participation rate in the workforce).

AHLCLM and AWC operations often take place in remote areas and it is in the interests of the industry to ensure that issues with remote training, RTO delivery and thin markets are addressed. In addition to sharing these concerns with Indigenous communities, it is important for industry to ensure there are stable labour markets in remote communities to be able to service industry needs.

Aquaculture and Wild Catch

Aquaculture and wild catch (AWC) industries have a complex and difficult operating environment.

As a starting point, AWC operations face the complexity of defining the rights to operate, not only in terms of the complex and restrictive regulatory environment identified by the Productivity Commission, but also in terms

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[70] Cuervo, Barakat and Turnbull, 2015, *Youth, belonging and transitions: Identifying opportunities and barriers for Indigenous young people in remote communities.*

[71] M. Ackehurst, R.-A. Polvere & G. Windley, 2017, *Indigenous participation in VET: understanding the research*, NCVER, Adelaide.

[72] Cuervo, Barakat and Turnbull, 2015, *Youth, belonging and transitions: Identifying opportunities and barriers for Indigenous young people in remote communities.*

of territorial rights issues. Australia has legislative and judicial approaches to the identification and recognition of Native Land and Sea Claims under the Australian system, and also utilises Indigenous Land Use Agreements. Specific rights may vary depending on the natures of the claims and on whether claims cover land, intertidal zones, "sea country", the contiguous zone and the exclusive economic zone. The Productivity Commission recommends that Indigenous customary fishing should not be defined and limited by grants of Native Title or claims by specific Indigenous communities, but "should recognise all Indigenous Australians with a connection to sea country and a desire to engage in fishing activities in accordance with customary laws"[73].

Any sea rights may be further complicated by various agreements between Australia and Papua New Guinea, Timor Leste, Indonesia, the Solomon Islands and New Zealand.

As operating licenses expire, renewals may become more uncertain due to the changing territorial rights environment, as well as standard renewal issues relating to sustainability, environmental protection and market considerations.

There is a movement towards remote operation centres as a method of working. Distant operations can be centred in many locations, but the temptation will be to focus on urban areas with access to industry-ready labour, power supplies and technology channels. Urbanisation of AWC operations and labour markets could have devastating impacts on local economies, especially for Indigenous communities[74]. This project provides an opportunity to exchange information with Indigenous communities and to identify potential opportunities for both the communities and industry in the search for mutually beneficial outcomes.

The AWC IRC recognises through the experiences and consultations of members that the industry needs grounding and training to be able to identify potential issues. However, better results will almost certainly be obtained if risks are minimised by working cooperatively and at early stages with Indigenous communities and organisations. This is a driver for submitting the project at this time, to lay the groundwork for later success.

Amenity Horticulture, Landscaping, Conservation and Land Management

The roles of the Indigenous Rangers, who predominantly hold qualifications in Conservation and Land Management, is continuing to expand as the success of the program continues to grow. Aboriginal and Torres strait islander communities continue to hail the success of the programs, which provide substantial employment opportunities on country in communities and are opening up new industry opportunities.

During the recent bushfire emergencies in Australia, there was increasing interest in the roles Indigenous people and methodologies play, and the potential for expansion of those activities, in conservation, land management and fuel reduction. It is likely that the forthcoming Bushfires Royal Commission will give further consideration to these possibilities in 2020, and there is an opportunity for this project to be in place to assist in quicker implementation of any recommendations that may arise.

In the Northern Territory, many Indigenous Rangers are being asked to undertake work relating to waters, especially relating to fishing operations and access. Various proposals have been put forward to extend responsibilities to animal care, and to community health activities related to hygiene in dealing with animals in areas where public health support is not available.

There is an increasing reliance on activities being undertaken in remote areas by local Indigenous communities, often on a fee for service basis. However, there is a lack of support in these areas for RTO delivery of training. More data and evidence are needed to fully understand these changes in the skills environment.

Ministers Priorities Addressed

Obsolete and Duplicate Qualifications Removed from the System

Most of the relevant qualifications in the AHC and AWC training packages have been developed in consultation with industry, but may be underused in Indigenous communities. Some specifically Indigenous qualifications were developed and incorporated into the national system, to meet economic and social development needs of

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[73] Productivity Commission, 2016, p.171, *Marine Fisheries and Aquaculture, Final Report.*

[74] Productivity Commission, 2016, *Marine Fisheries and Aquaculture, Final Report.*

communities and to support implementation of national and local policy settings. It would be expected that Indigenous specific qualifications and training would have smaller participation numbers than many other qualifications, especially as most of these qualifications are designed for use in regional, rural and remote Australia.

Enrolment numbers currently indicate that particular qualifications related to Indigenous programs, in particular Aboriginal Site Works and Indigenous Land Management, are being underutilised. While the qualifications have low enrolment numbers, the units of competency usually have good enrolment numbers, which may indicate issues relating to the outcomes of the qualifications or the packaging rules. However, this does not match expanding utilisation of Indigenous Rangers and the utilisation of Indigenous people in the development of major infrastructure projects. For example, a major infrastructure project in Queensland utilised state-based accredited training offered as a Certificate III in Indigenous Cultural Heritage Assessment (Indigenous Archaeological Foundations).

The IRCs are reluctant to recommend removal of Indigenous specific qualifications from the system without clear evidence that they are no longer serving industry need, government policy settings and community purposes, and being able to demonstrate clear alternative pathways and approaches.

More information about industry's expectations of training delivery is available to training providers to improve service delivery and to consumers to enable more informed choices

One of the important outcomes for the project is the development of guidance for industry to better develop partnerships with Indigenous communities relating to skills and training, and training for the development of commercial partnerships. To achieve this will require improved availability of information for industry, communities and learners.

The training system better supports individuals to move more easily between related occupations

There are indications that the availability of training is not keeping up with the movement of Indigenous people between related and unrelated roles in communities. This may lead to unsafe working environments and increased risks for communities that are already facing disadvantage. There will be collection of evidence and data related to the use of accredited and non-accredited training to support Indigenous workers moving between occupations.

Improved efficiency of the training system through units that can be owned and used by multiple industry sectors

The IRCs intend to work together to identify commonalities, and potentially training and approaches that may be suitable for other Training Packages, especially for industries operating in Regional, Rural and Remote Australia. The IRCs are very aware that work in Aboriginal and Torres Strait islander communities requires strong and trusting relationships, and that any approaches identified in this project will need careful re-examination before being applied in other contexts.

Foster greater recognition of skill sets

The research project will provide additional data, evidence and understanding of the training needs of Indigenous communities, especially in Regional, Rural and Remote areas. It will examine the use of accredited and non-accredited training, as well as at the use of Skill Sets as ways to extend the responsibilities of current workers, and the perceived lack of pathways to higher level qualifications.

Research Project Plan

The IRCs will oversee the research. They recognise that consultations with Indigenous communities can be difficult and the use of "local voices" is encouraged to deliver and to receive information.

The consultation and research process will include:

- Qualification and skill set utilisation:
    - Collation and analysis of data using NCVER and other official resources.
    - Consultation with Indigenous RTOs and other RTOs delivering Indigenous qualifications to sense check official data and to identify reasons for use of qualifications and skill sets.
    - Consultation with employers working with Indigenous communities and supporting employment programs on decisions related to employment and the use of qualifications for these decisions.
- Training outside of the national system:
    - Consultations with Indigenous organisations, Elders and community leaders as to other learning activities directly related to employment and skills (excluding cultural learning which can be applied in employment).
    - Consultation with Indigenous RTOs and other RTOs delivering Indigenous qualifications on training they are delivering outside the national system.
- The need for current qualifications with low enrolments:
    - Consultations with Indigenous organisations, Elders and community leaders on the economic and social importance of the relevant qualifications.
    - Consultations with State Training Authorities as to policies and approaches to supporting Indigenous VET, and specific actions taken to support and encourage Indigenous training in AHLCLM and AWC.
- Barriers to training, including to apprenticeships and traineeships, especially in remote and very remote communities:
    - Collation and analysis of data using NCVER and other official resources.
    - Consultations with Indigenous Organisations and employers on barriers.
- Joint guidance developed with Indigenous organisations to initiate effective consultation for the future development of Training Package Projects:
    - Collation and analysis of published research and official guidance.
    - Consultations with Indigenous Organisations.
    - Collection of successful case studies.
- Identification of potential solutions acceptable to Indigenous organisations to improve training and employment outcomes in remote Indigenous communities which can be achieved through training package standards, and which are within the responsibilities of the AWC and AHLCLM IRCs:
    - Submission of findings to IRCs and Indigenous organisations, and request for detailed feedback.
    - Validation process for potential solutions.
- Joint guidance to creating a future project for VET training to help AWC and AHLCLM organisations develop joint ventures and commercial opportunities with Indigenous communities and organisations:
    - Submission of findings to IRCs and Indigenous organisations, and request for detailed feedback.
    - Collection of successful case studies.
    - Validation process for potential guidance.
- Recommendations from the Indigenous communities and organisations relating to the potential for developing commercial, customary AWC and AHLCLM activities, including issues relating to the sharing of customary traditions and the opportunities that may exist to support development (focused on the skills and training needed to create outcomes) in areas such as fishing, conservation and land management (including fire):

- o Submission of findings to IRCs and Indigenous organisations, and request for detailed feedback.
- o Collection of successful case studies.
- o Validation process for potential guidance.
- o Submissions of specific Training Package product development projects.

Appropriately qualified researchers and Indigenous consultation specialists will be sub-contracted by Skills Impact to lead direct negotiations/consultations with Indigenous organisations and communities to help complete the identified Key Deliverables.

A variety of Indigenous businesses and experts will be approached to facilitate the project. They will be identified through Indigenous networks and stakeholders, including Indigenous Business Australia, and assessed for suitability based on Indigenous involvement in the ownership of the consultancy business/organisation (where appropriate), involvement in previous projects involving Indigenous communities, and knowledge and understanding of the VET sector. It is expected that most people involved in the consultation will be from Aboriginal and Islander backgrounds and understand the importance of protecting traditional knowledge to maximise the potential for cultural and economic benefits for local communities.

The detailed plan for each Key Deliverable will need to be developed jointly with relevant Indigenous stakeholders, the sub-contractors and Skills Impact to ensure culturally appropriate approaches and ownership of the outcomes.

The IRCs note that the general approach to the VET Training Package development system is to encourage voluntary participation representing a part of the industry's 'in-kind contribution' to the operation of a robust VET system that underpins skilled and productive workforces. However, guidelines for research and consultation projects with Indigenous communities encourages payment to Indigenous participants, recognising that Indigenous knowledge and culture has value and should not be exploited.

IP Australia is continuing a similar long-term consultation project investigating formal options to protect the value of traditional Indigenous knowledge. In the *Protection of Indigenous Knowledge in the Intellectual Property System Consultation Paper*[75], IP Australia recognises that obtaining traditional knowledge (for example, customary fishing practices) has occurred without the value flowing back to the community sharing that knowledge, which undermines both local culture and economic opportunities.

The AIATSIS's *Guidelines for Ethical Research in Australian Indigenous Studies* (GERAIS) is identified in Janet Hunt's paper for the *Closing the Gap Clearinghouse* as the best standard for guiding Indigenous engagement projects. AIATSIS GERAIS Principle 11 states that Indigenous people involved with research should benefit from their involvement, and specifically states that applying this principle requires recognition "that certain cultural information is owned and may need to be paid for" [76]. The Institute further asks that researchers "Be prepared to pay those contributing to the research in recognition of the value of their contributions, particularly where significant time is given outside normal personal or community commitments". Janet Hunt presents a case study ('Local boards in the Northern Territory shires') in which one of the contributing factors to the failure of the scheme was that participants "were not paid to attend meetings as were shire staff, nor was lunch provided" [77]. A similar situation would apply where Skills Impact staff and contractors will be paid during this project.

The IRCs recommend that an allocation be made in the project costing to make payments to Indigenous participants for research and consultation in recognition of the imparting of traditional knowledge, where appropriate.

Skills Impact will undertake desk research and some additional direct consultations with stakeholders. Skills Impact will also engage with NCVER to ensure full access is available to the latest research that may prove beneficial to the completion of the project.

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[75] Australian Government, 2019, *Protection of Indigenous Knowledge in the Intellectual Property System Consultation Report*

[76] Australian Institute of Aboriginal and Torres Strait Islander Studies, 2012, p.15, *Guidelines for Ethical Research in Australian Indigenous Studies.*

[77] J. Hunt, 2013, p.19, *Closing the Gap: Engaging with Indigenous Australia - exploring the conditions for effective relationships with Aboriginal and Torres Strait Islander communities*.

Stakeholders

The AWC and AHLCLM Industry stakeholders are those identified in the Annual Update to the Skills forecast in 2020.

Indigenous and Indigenous Training Stakeholders

- Aboriginal and Torres Strait Islander communities, in particular Elders and learners
- Northern Australia Indigenous Land and Sea Management Alliance
- Northern Land Council and associated organisations
- Central Land Council and associated organisations
- State and Territory Indigenous Chambers of Commerce and equivalents
- Kinaway, Noongar Chamber of Commerce and similar local organisations
- Torres Strait Regional Authority
- South West Aboriginal Land and Sea Council
- Goldfields Land and Sea Council
- Carpentaria Land Council Aboriginal Corporation
- North Queensland Land Council
- Lockhart River Aboriginal Shire Council
- Kimberly Land Council
- Yamatji Marlpa Aboriginal Corporation
- Quandamooka Yoolooburrabee Aboriginal Corporation
- Ngalla Maya Aboriginal Corporation
- Cape York Partnership
- Australian Institute of Aboriginal and Torres Strait Islander Studies
- National Centre for Indigenous Excellence
- Batchelor Institute of Indigenous Tertiary Education
- Australian Indigenous Education Foundation
- The Lowitja Institute
- Stronger Smarter institute
- Clontarf Foundation
- Minderoo Foundation
- AIME (AIME Mentoring)
- Girls Academy (Role Models and Leaders Australia)
- Indigenous RTOs and Indigenous Engagement Officers at RTOs
- State and territory based Aboriginal Education Associations and Consultative Groups
- University-based Indigenous education centres, groups and institutes
- Australian Council for Educational Research
- Indigenous Business Australia
- Australian Indigenous Governance Institute

Scope of Project Overview

Overall timing: 12 months from delivery of signed Activity Order.

Key Activity Timing

Months	Activity
1	Project planning and briefing, arrangements with sub-contractors, identification of experts and consultation with IRCs
2-3	Commencement of consultative research activities
4-6	Development of initial findings and report submission relating to qualifications, training outside the system et al, with identification of further work to consolidate data and evidence
6 - 8	Further consultation and development of joint guidance and solution products
9	Writing of final products and development of any consequent Cases for Change or Research Projects
10-11	Validation of prepared reports, guidance and solutions with IRCs and Indigenous Organisations
12	Approval of key deliverables for endorsement by IRCs and submission to AISC

The project timing will need to be flexible and guided by participants.

Summary of Components

Key Deliverables

Key project deliverables to be achieved during the first year of the project (any extension beyond the first year or any consequent work will need to be separately submitted for approval):

- Submission of a report with evidence addressing:
  - Qualification and skill set utilisation
  - Training outside of the national system
  - The need for current qualifications with low enrolments
  - Barriers to training, including to apprenticeships and traineeships, especially in remote and very remote communities.
- Guidance developed with Indigenous organisations to initiate effective consultation for the future development of Training Package projects.
- Identification of potential solutions acceptable to Indigenous organisations to improve training and employment outcomes in remote Indigenous communities which can be achieved through training package standards, and which are within the responsibilities of the AWC and AHLCLM IRCs.
- Guidance for a future project for VET training to help AWC and AHLCLM organisations develop joint ventures and commercial opportunities with Indigenous communities and organisations.
- Recommendations from the Indigenous communities and organisations relating to the potential for developing commercial, customary AWC and AHLCLM activities, including issues relating to the sharing of customary traditions and the opportunities that may exist to support development (focused on the skills and training needed to create outcomes) in areas such as fishing, conservation and land management (including fire).

Funding Requirements
To be submitted separately and remain confidential. Details will be arranged between the Department for the AISC, and Skills Impact as the SSO for the AWC and AHLCLM IRCs.

Table A
Table A is not relevant to this submission.

IRC Sign-Off
Signed on behalf of the Aquaculture and Wild Catch IRC

[Sign-off]

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Chair: Johnathon Davey

Industry Skills Forecast and Proposed Schedule of Work
Annual Update 2020