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FISHERIES RESEARCH &
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**National People Development:
Membership of PIEFA to
support and encourage the
teaching and learning in
Australian schools of
information related to the
Australian Fishing Industry**

Improving Food and Fibre Literacy

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Introduction/Background

PIEFA was established in 2007 with bipartisan government support following an extensive series of roundtables and working party meetings supported by the federal Minister of Agriculture.

PIEFA became operational in April 2010 with support from the government, education and industry sectors. The intent of PIEFA was to provide national coordination and leadership to the fragmented primary industries education sector.

PIEFA operates as a national not for profit company, with minimal overheads, governed by a skills-based board of directors with membership from the government, industry and education sectors.

The majority of PIEFAs operational funding comes from the Rural Research and Development Corporations, with 10 RDCs as members currently.

PIEFA has enjoyed strong bipartisan support at a government level with the federal Department of Agriculture and Water Resources a member and the Labor opposition has recently announced a pre-election commitment of a continued four years membership, if re-elected.

A 2012 survey commissioned by PIEFA and undertaken by the Australian Council of Educational Research (ACER) revealed;

- 75% of year 6 students thought cotton socks were an animal product
- 27% of year 10 students thought yoghurt was a plant product
- 45% of students could not identify that bread, cheese and bananas all originate from farmed products
- 73% of students did not identify that Salmon were a farmed product
- **40% of year 10 students thought farming damaged the environment**
- **43% of students did not link science to primary production**
- **55% of students did not link innovation to primary production**

PIEFAs core vision is an Australian community that understands and values its primary industries sector.

PIEFAs Mission is to engage and inform students, teachers and the broader community about the role and importance of primary industries in the Australia economy, environment and wider community, and the career opportunities available within the food and fibre supply chain.

PIEFA provides national leadership and coordination of initiatives to encourage food and fibre education in schools through a partnership between industry, government and educators.

Specifically, PIEFA operates in the following domains; maintenance of a national tripartite network; Federal and State Policy; ease of access to resources for teachers; teacher professional learning; career information for teachers and students.

Objectives

1. The objectives of the Project are to;
 - a. provide national leadership and coordination of initiatives to encourage primary industries education in schools through a partnership between industry, government and educators
 - b. commission, coordinate, facilitate and manage national projects to encourage primary industries education in schools
 - c. provide a source of credible, objective and educational resources for schools to maintain and improve community confidence in Australia's primary industries; and
 - d. communicate primary industries research and development in a format accessible for schools and encourage interest from schools in primary industries related careers

2. Develop, promote and extend specific resources for the Australian Fishing industry with a focus upon sustainability, science and innovative practices.

Method, Results, Discussion and Conclusion

Policy Development

PIEFA maintain and leads a national oversight of the development and implementation of the national curriculum, including its roll out at a state-based level. This ensures that there is appropriate content at a related to Australia's primary industries sector, especially related to fisheries and fisheries related content.

This content provides PIEFA with an opportunity to advocate for the inclusion of food and fibre related content at a classroom level as a core component of a teacher's accountabilities.

For example, teachers have the opportunity to embed fisheries content with their teaching and learning programs at a range of levels, such as;

- Year 1 Science: Living Things have a variety of external features. Describing the features and use of animals such as fish. (ACSSU017)
- Year 2 Geography: The similarities and differences between places in terms of their type of settlement and the lives of the people who live there. Discussing the similarities and difference in the types of work people do in their own place with a different type of place in Australia. (ACHGK019)
- Year 7 Economics and Business: Characteristics of entrepreneurs and success businesses (ACHEK019)
- Year 9 Geography: Biomes and Food Security. The capacity of the worlds environment to sustainably feed the projected future global population (ACHGK064)

Increasing PIEFA has become involved with curriculum implementation at the state level as year 11 and 12 curriculum are designed.

A major achievement for PIEFA within the reporting period was the inclusion of Marine Science in the revised year 11/12 subject in Queensland. In 2016 in a review of the senior science curriculum initial draft proposals had Marine and Agricultural Science related to the status of applied sciences rather than a pre-tertiary subject within their own right. The effect of this would have been to reduce the status, attractiveness and ultimately the enrolments within the subject.

PIEFA strongly advocated and alerted groups within our network to this threat and ultimately Marine Science has remained a stand-alone year 11 and 12 subject in Queensland with a competitive ATAR weighting.

PIEFA continues to remain engaged with senior leadership in all curriculum authorities across Australia and monitors curriculum revision and development on behalf of industry.

Resource Access and Development

PIEFA plays a key role in the development, collation, and curation of resources related to Australia's food and fibre production sector. This is no different for the fishing and aquaculture industry.

PIEFA presently curates 56 fishing industry specific resources, with another 42 referencing fish production in an integrated context on the web portal www.primezone.edu.au This represents approximately 15% of the total resources discoverable on the site. PIEFA has acknowledged that there is a lack of industry specific content available and has made steps to rectify this.

Specifically, a suite outlining the production of Atlantic Salmon were produced in relation to TASSAL. These comprised of classroom specific resources and videos viewable via VR headsets that allowed students to closely and intimately observe the egg to plate story. These videos were produced at a time of contention for Salmon production in Tasmania and became a much-needed positive boost to the industry at a time of need.

PIEFA is currently supporting the development of a comprehensive set of resources for years 11 and 12 Marine Science curriculum. These are due to be launched in late 2019 and will be available state-wide and nationally.

In the last financial year, the website www.primezone.edu.au was accessed by roughly 25,000 unique users who downloaded nearly 300,000 separate resources.

Since the upgrade to the PIEFA website in April 2017, fisheries related resources have been accessed 61,538 times, with 30,854 coming in the last 12 months alone.

The resource 'Exploring the production and marketing of seafood' has been the most popular with 2298 downloads.

https://www.primezone.edu.au/item_details.php?item_id=87&item_type=resource&content_list_id=2

PIEFA has also recently taken over the management and curation of the career website, www.careersharvest.com.au which we will develop to promote career pathways, scholarships and internships for the sector.

Teacher Professional Learning

Having content within the curriculum and having easy access to resources does not guarantee that teachers will present a positive view of industry. The role of professional learning in increasing teachers' knowledge and confidence is not to be underestimated and that is why PIEFA invests in professional learning activities.

PIEFA runs a bi-annual national conference that brings together educators, industry and government from around the country and times, overseas. Over two full days teachers share practice, engage with industry and network with colleagues. Conferences were held in 2016 and 2018 with fisheries content delivered via workshops and lightning presentations.

PIEFA attends and presents content at national educator conferences on behalf of our members including trade display tables where teachers can explore content via PIEFA websites and receive member collateral such as complimentary copies of Fish magazine. Since 2016 PIEFA has interacted with over 10,000 teachers through these conferences.

PIEFA has played a role in supporting the Marine Teachers Association of Queensland (MTAQ) last two conferences including speakers and field trips.

From late 2019 PIEFA will be conducting state-based one day workshops for teachers in every state and territory, starting with Queensland, the Northern Territory and South Australia in 2019 and the remaining jurisdictions to be rolled out in 2020.

Teacher professional learning will remain a focus into the future to build awareness of the role of food and fibre production in the curriculum, Primezone as the go-to place for resources and for the range of professional learning opportunities on offer by PIEFA and partner organisations.

PIEFA has recently signed an MOU with the NSW DPI and RASNSW to form a partnership entitled 'Knowing and Growing'. The idea is to collaboratively deliver Professional Learning to teachers in NSW in a coordinated fashion. The first event was held on Monday the 4th of June 2019 and many events are planned throughout regional and rural NSW. <http://knowingandgrowing.edu.au>

National Network

PIEFA maintains and operates a national network which serves as the connection between industry, educators and government in relation to food and fibre education. PIEFA members get key billing among our connections.

PIEFA produces a national newsletter which is published monthly to an audience of over 7,500 recipients with key metric well over industry average. The open rate is approximately 27% month on month with a click rate of over 5%. Readers range from teachers, producers to state and federal ministers.

The newsletter contains information and articles related to resources, news, scholarships, events and careers information. PIEFA includes fisheries information sourced directly from FRDC and from other sources from whom PIEFA is connected.

PIEFA promotes activities and news through our social media accounts on Twitter, Instagram and Facebook which each have approx. 2,500 followers. PIEFA promotes content sourced from members and stakeholders that promote a positive view of the industry.

Conclusion

Across these four areas I firmly believe PIEFA has achieved the objectives set out in the project.

Of particular significance is the figure of over 60,000 fisheries related downloaded resources and the development, promotion and adoption of salmon industry resources at a time of specific industry need.

Recommendations and Further Development

PIEFA strongly recommends that this partnership continue for a further three years to continue the stated objectives within this project but also to develop a greater range of resources specifically targeted toward particular areas of the curriculum where identified gaps exist.

To do this PIEFA proposes undertaking a gap analysis of existing fisheries resources against the Australian curriculum to identify where the need is.

When these new resources are developed, a system or process needs to be developed to better link the development of these resources with emerging or existing research and development. One area the current project has potentially not been as successful as one would hope is in the extension of existing research and development. Not for want of trying, but in the absence of a clear process and protocols it often became too difficult and time consuming to effectively communicate the needs in this area.

Extension and Adoption

PIEFA reports and promotes its work through newsletter, social media, annual reports (attached) and in reporting to the Department of Agriculture and Water Resources.

FRDC's branding and acknowledgement as a member is across all PIEFAs websites, newsletters and as conference presentations etc.

Project materials developed

<https://www.primezone.edu.au//page.php/?id=&id=11>

<https://www.primezone.edu.au//page.php/?id=&id=11#>