# AUSTRALIAN SEAFOOD CRC
'Implementing the Knowledge'

AUSTRALIAN SEAFOOD COOPERATIVE RESEARCH CENTRE

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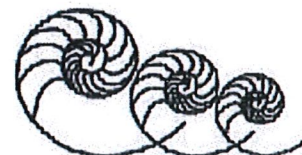
LONSEC

DOSAQUA Pty Ltd

FINAL REPORT

Training Needs Analysis/ Learning Environment Analysis
Template, Pilot & Report
*Prepared for the Seafood CRC by David O'Sullivan and Jim Blackburn
Lonsec Limited*

Project Number: 2008/706
Date 18 May 2008

Australian Government

Fisheries Research and Development Corporation

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A Pilot for a Seafood Industry Training Needs Analysis

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As part of the 'Implementing the Knowledge' Theme Business Plan, a CRC funded project has developed a process for facilitating workplace education and training (E&T) to assist CRC participants expand their businesses.

Following consultation with industry and training providers, a five-stage process has been developed for industry participants to identify and implement targeted staff and business development E&T. The five stage program includes:

- Stage 1: Company Training Scope Survey

- Stage 2: Training Workbook — Developing a Training Plan

- Stage 3: Consulting with a Training Advisor

- Stage 4: Implementing the Training Plan

- Stage 5: Training review and assessment.

A two-page Introduction has been prepared to explain this process and to provide CRC participants with useful contacts for CRC Training Advisors.

The pilot project involved Lonsec Ltd's team of Dos O'Sullivan and Jim Blackburn working with Clean Seas Tuna Ltd (CST, a marine fish seacage farm in South Australia) and ASAE Pty Ltd (ASAE, a Rainbow Trout farming operation in Victoria planning to undertake inland saline aquaculture of Rainbow Trout in southern New South Wales). Both companies quickly completed Stages 1 and 2 and a draft Training Plan (Stage 3) was developed for their benefits. Examples of these documents have been provided. The feedback and assistance from managers at both companies is acknowledged as a major benefit for the project's outcomes.

Managers from both CST and ASAE expressed support for the process, saying it was "straight forward and logical", "replicable", "sensible and systematic".

It is generally accepted that much of the Australian seafood industry workforce is poorly qualified and the majority of industry training is purely for compliance reasons. McShane (2004) concluded that the aquaculture industry has relatively little understanding of current training pathways (including the Seafood Industry Training Package [SITP]). As a consequence, industry is generally disengaged in training.

Much of the industry is a nil-entry level employer (i.e. the entrant needs no qualifications). Despite the fact that the SITP is recognised around the world as a best practice Training Program, the up-take has been poor. Seafood Traineeships/Apprentices figures hover in the 100's in Australia whereas in New Zealand they are in the 1,000's (based on raw data from AFISC Seafood Standing Committee, October 2007).

There are skill shortages across all sectors and anecdotal reports that there is a net flow of people out of the industry (the drought, high Australian dollar in relation to the USD, increasing costs of operation and over compliance are all issues contributing to this). Finally, training is not seen as an important driver of business profits. All of this clearly puts the industry at a major disadvantage with competing occupations, particularly those offering higher wages (eg. mining).

The Seafood CRC is aiming to address capability building and other relevant issues through its Industry Education and Training (E&T) Themed Business Plan - 'Implementing the Knowledge' with Roy Palmer and Dr Chris Carter as the Program Leaders. The Research Challenge for this program is to "Develop the skills base of people working in the Seafood industry who will help the industry to meet its future needs."

Thus, it was evident that a project should be developed through the CRC to show industry the benefits of training and for CRC industry participants to be provided with facilitated entry into a training environment.

This project proposal has been discussed with Seafood CRC management and has been identified as the suitable starting point for this process. Very little accurate information is available on the level and reasons for industry workplace E&T (both formalised [eg. SITP] or *ad hoc*) and in many areas industry training data is not current.

Companies / managers need to identify and access cost effective training programs for their business development, including utilisation of external funding sources. This first part of this is to identify exactly what skills are required – this is traditionally achieved through a Training Needs Analysis (TNA).

The objectives of the project include:

1. Develop and trial a TNA/LEA template

2. Develop and trial a process to identify, monitor and improve Key Performance Indicators (KPIs) for their business's E&T program

3. Produce a report analysing information obtained and making recommendations for the TNA/LEA's use by the CRC and its members

4. Recommend the mechanisms for the use of that information particularly the needs for confidentiality, the pros and cons of individual versus group training and other matters that arise.

The Seafood CRC will have a piloted approach through their 'Implementing the Knowledge' program to encourage industry participants to identify their E&T requirements as a critical component of their overall continuous business improvement plan. The CRC can utilise the 'Implementing the Knowledge' E&T Program to roll out new technology or skills developed within the participants or elsewhere.

The steps for the project were:

1. Establish a CRC management team which will consist of Roy Palmer working with the consultants with input from David Milne (AMC) and Emily Downes (CRC Communications Manager).

2. Identify two appropriate CRC industry participants to take on the responsibility as a test case for the development of the Training Needs Analysis (TNA) and/or Learning Environment Analysis (LEA) template:

    i.   Clean Seas Tuna - aquaculture, fishing & processing of marine finfish in SA

    ii. ASEA - aquaculture & processing of Rainbow Trout in saline waters in NSW (note: this aquaculture company is involved in the Lonsec/NSW DPI project).

3. Review existing material (Dosaqua, S.A. and W.A. TNAs) and formulate a draft TNA / LEA template in consultation with the two test case CRC industry partners and the CRC management team.

4. Identify a process whereby production and financial Key Performance Indicators (KPIs) can be identified and utilised for analysing business performance though E&T.

5. Use the TNA / LEA template to identify the E&T needs and opportunities of the two CRC industry participants as a critical component of their overall continuous business improvement plan.

6. Discuss with these participants the mechanisms for the use of that information particularly the needs for confidentiality, the pros and cons of individual versus group training and other matters that arise.

7. Pilot the program by 30th April 2008

8. Submit draft report for review by a CRC management team and two industry participants.

9. Produce a final report making recommendations for the program's development for distribution to CRC industry participants.

All of the above steps were completed except:

*   The focus was taken off the Learning Environment Analysis (LEA, Step 2) as it was found that the Stage 3 workbook collates a lot of information required for establishing a learning environment within an organisation

*   Key Performance Indicators (KPI's, Step 4); It was determined that there was minimal value in prescribing generic KPI's that were not specific to the business, department, or management team for which the TNA process was complete. The process for identifying and establishing appropriate KPI's has been included in the Stage 4 process to be completed in conjunction with the CRC Training Advisors.

Clean Seas Tuna Ltd (CST)

Business: Public company (ASX code: CST) producing Yellowtail Kingfish, Southern Bluefin Tuna and Mulloway from hatchery, commercialisation of R&D into Southern Bluefin Tuna propagations. Annual production of Yellowtail Kingfish is around 2,700 tonnes, 800 tonnes of Southern Bluefin Tuna and 300 tonnes of Mulloway in floating seacages in Spencer Gulf. Undergoing rapid expansion in production capacity, hatchery R&D project.

Training History: Some training for compliance undertaken (coxswains, MED, skipper, OH&S, first aid, etc.). This training has been undertaken mostly through the Australian Fisheries Academy, however, some has been completed by TAFE SA.

Limitations: Skilled staff shortage (heightened by new iron ore mine to be build nearby); remoteness of main production plant from population centres, lack of onsite or neighbouring housing; limited time for skills development due to rapid expansion.

ASAE Pty Ltd (ASAE)

Business: Private company producing Rainbow Trout from hatchery to growout. Operates three trout farms in the Yarra Valley region of Victoria (total annual capacity in excess of 200 tonnes) as well as fish processing, smoking and value-adding plant in NE Melbourne. Undergoing rapid expansion in production capacity, hatchery R&D. New 300 tpa plant using inland saline water at Wakool (NSW) to be built and commissioned in 2009. Head-on gilled-gutted (HOGG) fish would be sent on ice to processing plant.

Training History: Ad hoc training of new staff was undertaken in some years, plus required (compliance) training took place occasionally. When ASAE took over the farms in 2005, a more structured training program (through Northern Melbourne Institute of Technology) was introduced with a number of candidates starting Certificate III to Diploma qualifications in the Seafood Industry Training Package in mid 2006. However, due to production constraints heightened by the drought, the program was postponed in early 2007. In addition several of the staff left the company due to the down scaling of production.

Limitations: Skilled staff shortage; travel time between farms and processing plant are up to 2 hours over mountainous roads which can be icy in winter; limited water accessibility has led to down scaling of production units which has led to key staff losses.

The following documents have been produced:

- Introductory 2 pager which explains what is undertaken at each stage = this can become a 'blueprint' for CRC E&T program.

- Stage 1 Company Training Scope (survey template)

- Stage 2 Training Plan workbook (instructional guide)

- Examples of Stage 1-3 Documents for E&T program developments within CST and ASAE*

- Final report (this document)

- Feedback from both industry CRC participants which piloted the process.

* Copies of these example documents have been provided to the Seafood CRC, however, they are considered 'commercial in confidence' and are not to be distributed to other people..

It is anticipated that the other documents can be used to encourage other CRC industry participants to identify E&T as a critical component of their overall continuous business improvement plan.

Summarises of the comments and feedback made by various members of the management teams from CST and ASAE who participated in the project are provided in Appendix 3.

Managers from both CST and ASAE expressed support for the process, saying it was "straight forward and logical", "replicable", "sensible and systematic".

For the E&T process to be implemented within a company (Stage 4), the following suggestions or comments were made:

- The availability of CRC Training Advisors will significantly assist with this important competent of improving the business.

- A large commitment in resources (time of employees and costs) can be required to undertake the implementation of E&T across the whole company, although incentives (e.g. traineeship funding) are available.

- Documenting or formalising training that is already taking place (eg. through induction and on-the-job skilling) will reduce the costs of the process.

- Small steps at first are advisable; for example selecting experienced workers and undertaking a process to recognise their competencies and identify gaps in required skills or knowledge – "test the water" with a few motivated employees and look for opportunities for "buy in" from others.

- Training does not need to be focussed entirely on a full qualification, rather skill sets can be identified for specific positions, e.g. upskilling of existing staff for the introduction of new technologies/equipment/work teams etc.

- Training should be flexible and user friendly to give people the choice to do the face-to-face (group, onsite) training as well as having good materials and resources for other experienced people to do in their own time (correspondence).

- Managers and Supervisors need to set clear performance objectives along with position descriptions for their staff, thus allowing specific skills sets to be identified (these can be mapped against nationally accredited competency standards).

- As not everyone will need/want to undertake training, the company's Training Plan must be flexible and able to take place at different times and involve different work teams, each with their own specific training needs. It also needs to be annually reviewed and updated for workplace changes.

- External assistance or advice for industry is required to develop and run a cost effective and flexible E&T program.

- Finally, a very important was made about validation. "A significant part of proving the worth of the course MUST BE a translation into the work place....measured through our performance management system."

To assist CRC Participants, a number of experienced advisors were identified:

Name	Mobile	Email
Roy Palmer CRC Workplace Training	**0419 528 733**	roy.palmer@seafoodcrc.com
Dos O'Sullivan Training Consultant Lonsec Limited	**0418 130 595**	dosaqua@bigpond.com
Jim Blackburn Research Consultant Lonsec Limited	**0408 881 075**	jim.blackburn@lonsec.com.au

As the CRC develops, others will become available, contact Roy Palmer if you have some suggestions.

Acknowledgements

This project would not have been completed without the excellent input and assistance from the following people:

- Jeff Browne, Mike Thomson, Chester Wilkes, Tony Octamann, Clean Seas Tuna Ltd
- Mark Fox, Donald MacNeil*, Andrew Little, ASAE Pty Ltd (*Donald is now working with CST)
- Roy Palmer and Emily Downes, Seafood CRC
- David Milne, Australian Maritime College
- Craig Foster and Simon Bennison, National Aquaculture Council
- Lisa Toogood, Australian Fisheries Academy
- Martin Hernen, South Australian Marine Fish Farmers Association
- Mark Cody, Primary Industries Skills Council South Australia
- Dan Machin, Aquaculture Council of Western Australia
- Shane Willis, Aquarium Industries
- Brett Stephens, ArchipelagioPearls
- Kathy Savage, Lonsec.

Bibliography

McShane, P., 2004. *Making the most of Education, Training and Workplace Opportunities for the Australian Aquaculture Industry*. AMC Search, for Department of Agriculture, Fisheries and Forestry, Canberra, 109 pages.

Refer to Part 5 – Ownership, Licenses and Moral Right contained in the project agreement established between the Seafood CRC Company Ltd (ABN 51 126 074 048) and Lonsec Limited (ABN 56 061 751 102)

Principal Investigator: Dos O'Sullivan, Training Consultant, Lonsec Limited.

Identified as such in FRDC Preliminary Research proposal (Application Reference RP004)

Note: Mentions of staff names or other 'personal' information has been deleted from the emails as has any other information that might be considered confidential.

Mike Thomson (CST), email sent 10 April, 2008

Thanks for the copies of all documents.

The whole process seems very sensible to me and systematic.

I agree with Jeff on a step-wise approach and would go further to say that this is much too ambitious for us at this stage.

I would imagine that only a very few employees would be interested in this amount of work/training and from the company point of view we could not apply this widely at this stage in our development. Too much time commitment and too much money.

However, we ought to "test the water" somehow and we should identify one or two individuals whom we wish to develop and try out some of the modules.

This might not sound too co-ordinated, but we need to start somewhere!

Not sure how much scope there is for combining some modules and re-assessing whether all of the modules are absolutely necessary to achieve the minimum level II for example?

Just one more point. Will there be some kind of executive summary produced so that we can show Marcus and Hagen to let them know in a concise way what has been done?

Jeff Browne (CST), email sent 10 April, 2008

My feedback:

1. The concept is exactly right. The process is straight forward and logical...and replicatable too!
   - Identify the skills required to do both the technical and procedural parts of the job
   - Identify that work is not only about the technical aspects, but it is about teamwork, communication, documentation etc
2. We need the Managers and Supervisors to set the clear performance objectives required by the position, the Skill Sets in fact are transferable directly into the Position Description.
3. We need the employees, who know their job best, to then "qualify" and agree. This bring about the "buy in" and commitment from them.
4. This then would logically lead to a T&D Plan.

Please note my T&D Plan from previous position: But this plan didn't really get down to the specifics of the job craft.

Other comments:

- Huge commitment in resources (time of employees and therefore costs)
- Probable that many of our employees would be eligible to attract traineeship funding to make the training cost effective.

- Are our Deck Crew motivated enough to actually want to do a significant amount of training to achieve Cert II?

- From my early perspective, the company has very little understanding of what a "learning organisation" looks like. Meaning that to jump from very little to something very big would be a quantum leap. Small steps first might be advisable.

- It should be a focus for all managers to know exactly what the new employee needs to know, as he steps on board, or walks into the Net Shed...to start work. Our induction program should refine the focus, our performance development and review program should then check achievement and competencies.

The STAGE II document is good. The last page (5 of 5) is again a matter of assessment and confirmation by the various levels of employment. Eg. ALL would need to use HR and Employment Forms, but Corrective Action Records really are for the Supervisor.

The STAGE III document starts to get "scary", when you look at the level and hours of commitment on page 7 for example. But they are the facts of life. If WE or the Employee want a Nationally Recognised Certificate then there are minimum requirements. But again...are we there yet?

The cost effectiveness of the various modes of training delivery is also a concern. We would need multiple training rounds to get all staff through, given operational needs to actually feed the fish is the imperative or some other creative solution.

My last point is about validation. A significant part of proving the worth of the course MUST BE a translation into the work place....measured through our performance management system.

Mark Fox (CST), verbal comments March and April, 2008 (not direct quotes, more general ideas raised during discussions)

- Changing conditions and other events means that finding the time for training is difficult, other priorities came along

- Staff loss can be a big problem, so multi-skilling is important (also succession to overcome problems when key staff leave)

- Process is good and the resulting Training Plan will be useful when business is expanding (not at present).

- Incentives for training are valuable, however, many farms utilise a lot of part time and casual/seasonal labour which are not eligible for traineeships.

Donald MacNeil (ASAE), verbal comments late March, 2008 (not direct quotes, more general ideas raised during discussions)

- Process is workable and should happen on farms.

- However, timing and other problems associated with any aquaculture operation meant that there is a need for flexibility

- More stuff that can be done on-the-job the better.

- Training is not an easy thing to introduce without good inhouse or external advice; we need people to help us facilitate the process.

Andrew Little (ASAE), email sent 27 March, 2008

I am all for training and wanting to undertake as much as possible. But, I am only happy to undertake training IF the training is provided in a format useful and logical for me. My memories of our earlier training at Murrindindi were of frustration, as did most of the staff. The on-site training didn't work due to constant interruptions in the class-room and because the handouts were small, not well presented, and because the whole situation was rushed.

Personally, I'd rather be given a set of notes and a book, or access to online training and take the time to train myself, i.e. correspondence. I honestly don't have the time or patience to sit in a classroom with novice farm-hands who are there to learn the basics. It's not an acceptable use of my time, and time is of the essence in this company which focuses on minimising labour costs. It's hard enough finding time for lunch on a daily basis, and this training will need to fit in during the working week schedule.

Also, 4 weeks of holidays and regular days in lieu will be taken throughout the year. These days will be taken to suit the employee not the training schedule.

Having a more flexible delivery system rather than on-site visitations will, in my opinion, make this system far more user friendly and end up with more staff completing all of the training, rather than most staff undertaking parts of it and getting only a part education. That was the case in the first training program we undertook - frustration for a lack of a complete knowledge on any one subject.

I also don't think it's feasible to spend entire days training. Somebody has to look after the farms, hatcheries, grade etc. We're a 1 plus 1 operation at Noojee. We don't have excess staffing, and because of the high staff turnover, skilled staff are rare.