



Feasibility Report

Expected benefits and impact from FRDC Project 2018-087 maximising the value of the NSW long fin eel catch through a whole of supply chain approach – Stage 1

Background

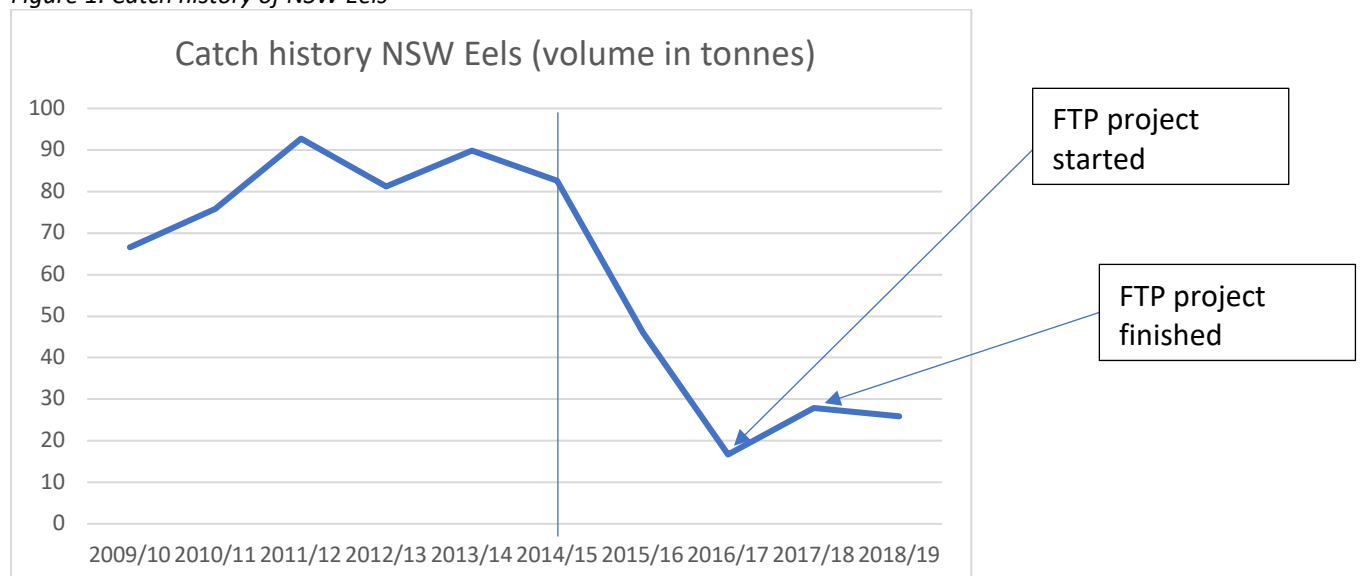
In 2018, the actual catch was about 17% of the total allowable catch. The reason for the low catch is the low prices. The reason for the low prices is that the traditional market of China through the in-direct route is no longer available. It is a prime example of what can happen when a sector relies on a single market.

Demand outstrips supply globally.

The problem is not one of demand. There is a worldwide shortage of eels, particularly in Japan, China, Korea, and Europe. The problem is not having a diversified market base or a sustainable route to those markets. By having a diversified mix of markets targeting both high volume/lower priced and lower volume/higher priced niche markets, fishers will generally be better placed to capitalise on their investment in the fishery.

Catches have declined sharply since 2014/15, when China started to crack down on illegal imports. It is evident, however, that the fishers and the market respond quickly to interventions. Increased revenues and catches occurred when prices increased due to both the Farming Together Project and consequent increased exporter activities, as well as increased competition at the Sydney Fish Market. See figure 1 below for the catch history for NSW Eels.

Figure 1: Catch history of NSW Eels





Room for sustainable growth

An initial review of historical catches and price data indicates that there is significant room for growth in volume and value without putting pressure on the resource. The quota for the NSW Eel fishery is approximately 155.22 tonnes. Prices for a low volume of catch average about \$8/kg (having fallen to lows of \$3 to \$5/kg). Fishers have also reported having to pay for the disposal of products not sold at SFM – creating a loss situation. Some fishers receive up to \$15/kg for very low volume niche markets.

The FRDC project *2018-087 Maximising the value of the NSW Long Fin Eel catch through a whole of supply chain approach – Stage 1* set out to identify new market and product format opportunities for Eels using NSW Eels as a case study. While we know that globally there is a worldwide shortage of eels, the key question is not only whether new markets exist but whether the NSW eel industry participants can capture those markets and achieve this at scale, i.e. not just one or two companies focusing on niche markets but on the entire fishery and utilising “run of catch”.

If the business case is proven, Stage 2 of the project will examine whether the current quality management systems are fit for purpose and, if changes are needed, ensure that the quality procedures through the chain are driven by the market needs and meet specifications.

Growth and ROI Scenarios

There is significant room for growth in volume and value if a viable and stable market can be found. The 2018/2019 quota for the NSW Eel fishery was 155.22 tonnes, with prices averaging about \$8/kg (having fallen to lows of \$3 to \$5/kg).

Three growth scenarios are investigated in this report.

1. Same volume with increased prices
2. Increased volume with increased prices
3. Increased volume apportioned to different price points (run of catch)

Note in all scenarios, we use nominal prices (2018).

Scenario 1: Catch the same volume and increase prices:

In this scenario, we considered four price points, with the base price being \$8/kg, which is approximately what fishers are getting currently. This scenario involves no changes to the product format ie it is caught and transported to processors/market whole and no change to quality.



Honey & Fox

In this scenario, some promotion and marketing effort will be needed to increase the price in real terms. This could include individual companies and/or whole sector brand development.

If we assume that this would require an initial minimum investment of \$100,000 with an ongoing investment of \$50,000pa. Over five years, this is a new investment of \$300,000 (not adjusted for inflation) of \$60,000 pa. This is described in Table 1 below. A price uplift of at least \$2.00 to \$3.00 per kg would be needed to cover the additional investment in marketing.

Table 1: Scenario 1 financial impact of catching the same volume and increasing the price

	\$8/kg	\$9/kg	\$10/kg	\$11/kg
27.88 tonnes	\$233,040	\$250,920	\$278,800	\$306,680
Diff	\$0	\$27,880	\$55,760	\$83,640
Marketing investment	\$60,000	\$60,000	\$60,000	\$60,000
	loss	loss	loss	Small profit

If the uplift in price can be achieved by creating new products, there is likely to be a concurrent investment in processing and quality management. We have assumed that a similar level of investment as for marketing would be required. As Table 1 shows, achieving any return on this additional investment would be difficult at the current catch level. This brings us to scenario 2.

Scenario 2: Increase catch (double it) while also increasing prices:

In this scenario, we have increased the catch volume and used the same price points and product format (whole) used in Scenario 1. We have assumed that with increased catches, there would need to be an investment in holding tanks, processing, quality management and marketing. In this scenario, an initial investment of \$300,000 plus \$80,000pa ongoing would be needed. In this scenario, we are using a 10-year timeframe for recovery of the initial \$300,000 investment.

Table 2: Scenario 2 Increasing the catch while also increasing prices

	\$8/kg	\$9/kg	\$10/kg	\$11/kg
27.88 tonnes	\$233,040	\$250,920	\$278,800	\$306,680
55.86 tonnes	\$446,080	\$501,840	\$557,600	\$613,360
Difference	\$213,040	\$268,800	\$324,560	\$613,360
Less costs	\$110,000	\$110,000	\$110,000	\$110,000
Total increased revenue	\$103,040	\$158,800	\$214,560	\$503,360
	Loss	Small profit	Profitable	Profitable



Honey & Fox

While we have hypothecated an increase in fishing effort, we have not accounted for any increases in fishing costs. We are assuming that these would remain accounted for in the sale price. When asked, the fishers interviewed could not provide estimates of fishing costs.

While scenario 2 demonstrates the potential return on investment, we also know that if we deal with a run-of-catch, not all products can be sold at the same price point, and different grades will likely attract different prices. This brings us to scenario 3.

Scenario 3: Increase catch to 50% of TACC (75 tonnes) apportioned to different price points

Scenario 3 assumes the same product format as the previous two scenarios ie that the product format is delivered to the processor/wholesaler/customer whole. It also assumes that the catch effort is increased to 50% of the current TACC with different percentages apportioned to different price points based on quality grading (eg size, colour, fat content, etc).

Table 3 shows how the total annual revenue in this scenario (using the price spread) would be \$723,750pa. Of course, changing the price spread will change the potential uplift in revenue. Assuming the same per annum investment as in scenario 2 would generate a net profit (across the fishery) of \$613,750 pa.

Table 3: Increased catch apportioned to different price points (graded)

Proportion of catch	Tonnes	Price	Revenue
25%	18.75	\$11/kg	\$206,250
30%	30	\$10/kg	\$225,000
30%	30	\$9/kg	\$203,000
15%	11.25	\$8/kg	\$90,000
Total	75		\$723,750

Again, this scenario does not account for the increased fishing costs at a higher volume than currently fished.

In all the scenarios where increased fishing effort is required, it would take between 5 and 10 years to achieve the higher volumes.

Investment assumptions

At this stage of understanding the potential opportunity for new product and market development of NSW Eels we have had to make some assumptions about the capital investment needed to train people, introduce quality regimes, build market awareness, and fill infrastructure/processing capability gaps.



Honey & Fox

We have not made any adjustments or assumptions about the inflation rates, so only nominal numbers are shown. We have also not made any assumptions about the initial capital investment discount rate. The authors consider that it will likely take up to 10 years of investment to make the changes and recover that investment over time so have apportioned that initial investment across that time frame.

Stage 2

As discussed above, we had anticipated that the market and product development research undertaken in Stage 1 would identify the need for revised quality management systems throughout the supply chain.

If there is enough interest from fishers and potentially other investors, a planned Stage 2 of the project will examine this aspect and help develop the full financial investment case to support the implementation of market-driven product quality and service processes through the chain.

Conclusion

The project has identified some product and market opportunities for NSW wild-caught eels. Capturing these opportunities will require investment. This feasibility report has outlined (in simple nominal terms) some potentially positive investment and growth scenarios that are worthy of progressing to Stage 2.

However, there is an apparent reluctance from the current participants (fishers and processors) to do anything other than fish the product as a secondary speculative wild fishery product targeting it when the prices are good, leaving the longer-term investment in marketing, quality systems, training, and productivity improvements to others.