Marine Produce Australia

Economies of Scales

The need for marine Barramundi

- **MPA has the potential to be a leading global player in the farming of Barramundi, offering the attraction of scale, in terms of unit costs, and marine rearing in terms of quality. Currently it receives a $2-3/kg premium to competitor products. The company needs $20m of funding through its current growth phase to 2012. If successful in this, we would assess the DCF value of the business at $84m as against the current market capitalisation of $3.3m only.**

- Global fish stocks remain under severe threat from increased consumption, over-fishing and the impact of global warming. Global fish catches have stalled at circa 75-80m tonnes per annum but consumption is rising at some 2.7% per annum.

- Farmed production is the only way to satisfying this demand. With a 1.3% CAGR in per capita consumption and a 7.7bn global population by 2020, farmed tonnage needs to more than double from here, moving from 30% of all fish production to 50%.

- Barramundi is well suited to being farmed given its hardiness and good growth rates and growing market demand. Over the last 5yrs the wild catch has recorded a CAGR of -0.4% while farmed production has grown on average by 8.7%pa.

- MPA has significant attractions from ideal growing conditions off the Kimberley coast, to the ability to scale up to 5,000t of annual production vs. global farmed tonnage of ~32,000t. Scale opens up new markets, including the export & supermarket trades.

- Additionally, MPA discussions with the Tiwi Island's Land Council for a JV barramundi farm would move our company DCF to $177m assuming this adds a further 5,000t pa production by 2018.

- While some notable Australian fish farmers have failed of late, aquaculture is a $53bn global industry growing at ~7% pa. MPA offers good execution risk and can become a major industry operator. Share market investors should keep an eye on MPA where the securing of funding will be a major stock catalyst.

Year End June 30	2008A	2009F	2010F	2011F	2012F
Reported NPAT ($m)	(3.5)	(3.9)	(0.7)	(0.1)	2.2
Recurrent NPAT ($m)	(2.5)	(3.9)	(0.7)	(0.1)	2.2
Recurrent EPS (cents)	(4.9)	(4.6)	(0.6)	(0.1)	2.0
EPS Growth (%)	na	na	na	na	na
PER (x)	na	na	na	na	1.5
PEG	na	na	na	na	na
EBITDA ($m)	(1.6)	(4.0)	0.5	1.6	4.0
EV/EBITDA (x)	na	na	27.4	10.1	3.7
Capex ($m)	1.9	1.5	7.4	2.2	2.0
Free Cashflow	(5.9)	(5.3)	(7.6)	(2.1)	1.5
FCFPS (cents)	(11.3)	(6.3)	(6.9)	(1.9)	1.4
PFCF (x)	na	na	na	na	na
DPS (cents)	0.0	0.0	0.0	0.0	0.0
Yield (%)	0.0	0.0	0.0	0.0	0.0
Franking (%)	0.0	0.0	0.0	0.0	0.0

7 March 2009

12mth Rating		**HOLD**
Price	A$	0.03
Target Price	A$	na
12m Total Return	%	na
RIC: **MPA.AX**		BBG: **MPA AU**
Shares o/s	m	109.4
Free Float	%	44
Market Cap.	A$m	3.3
Net Debt (Cash)	A$m	1.0
Net Debt/Equity	%	13.8
3m Av. D. T'over	A$m	0
52wk High/Low	A$	0.18/0.03
2yr adj. beta		0.80

Valuation:

Methodology	DCF

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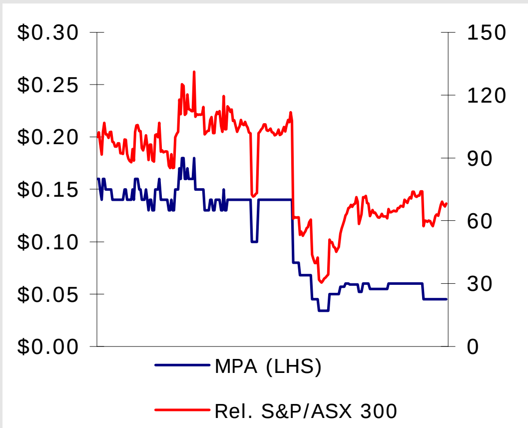
Disclaimer: Patersons Securities Limited was issued 1.1m MPA shares in January 2009 in payment for corporate services carried out on behalf of the Company.

Share Price Performance



Performance	**%1mth**	**3mth**	**12mth**
Absolute	-50	-50	-81
Relative	-46	-45	-68

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Executive Summary

Despite some recent failures in the Australian aquaculture space, given poor choices made from species, to location, to cash management and exogenous shocks such as disease and weather, we believe that investors need to look at this industry given that global fish stocks are under extreme pressure and the need for food security will drive substantial growth in farmed fish volumes.

Globally total fish production has stalled with some species of fish being close to fished-out. The most visible example is that of the Atlantic Cod where the catch has fallen 80% from the highs seen in 1968. The global fish harvest has been stalled at some 75-80m tonnes a year for the last 20 years, however, with global fish demand expected to rise by 41% to 2020, a significant increase in farmed tonnage is the only way to satisfy this trend. We estimate that this would require over a doubling of global farmed production from circa 38m tonnes annually to 83m tonnes in the next 12 years. Barramundi in this particular instance is one species very well suited to the expansion of its farming.

Accordingly, we see Marine Produce as being well placed to exploit this growth opportunity given management expertise in this field and assuming that funding can be secured to underwrite the expansion of its biomass requirements.

Marine Produce's existing project in Cone Bay off the Kimberley coast offers near perfect conditions. The combination of high tidal flows, positive for keeping conditions pristine both for the fish and environmentalists, and water temperatures allows MPA to grow high quality, high value fish up to the target 3kg weight over a 2 year period *(See Appendix A for life cycle).* Scalability is also easily achieved with the existing infrastructure allowing the company to take current production of 600 tonnes up to 5,000 tonnes.

Improvements in automatic feeding and the likely partnership in a hatchery in Broome will further help manage unit costs and improve feed conversion ratios as the company develops its selective breeding programme. Our estimates and DCF below are based on current results so would be sensitive to progress on this front.

In addition, our DCF for the business would more than double to $177m assuming a deal is reached for the Tiwi Islands' farm project which could add a further 5,000t pa of production by 2018. This leverage reflects better logistics for this project given proximity to Darwin and the ability to underwrite a further push into the supermarket and higher value overseas markets.

Figure 1: DCF valuation for current Marine Produce Australia's structure with funding

	2009F	2010F	2011F	2012F	2013F	2014F	2015F	2016F	2017F	2018F
Revenue	**5.4**	**12.7**	**18.9**	**23.2**	**25.8**	**31.8**	**44.6**	**57.2**	**62.8**	**67.9**
EBITDA Margin	-74%	4.1%	7.4%	17.3%	18.3%	26.4%	33.1%	37.0%	37.0%	39.9%
EBITDA	**-4.0**	**0.5**	**1.6**	**4.0**	**4.7**	**8.4**	**14.8**	**21.2**	**23.5**	**27.1**
Tax Paid	0.6	0.0	0.0	0.0	0.0	0.0	-1.1	-5.7	-6.4	-7.6
Investment in WC	0.1	-1.2	-1.0	-0.7	-0.4	-1.0	-2.1	-2.0	-0.9	-0.8
Operating Cashflow	**-3.3**	**-0.6**	**0.6**	**3.3**	**4.3**	**7.4**	**11.6**	**13.4**	**16.2**	**18.7**
Capital Investment	-1.5	-7.4	-2.2	-2.0	-2.2	-4.1	-3.5	-4.2	-4.4	-3.1
Free Cashflow	**-4.7**	**-8.0**	**-1.5**	**1.4**	**2.1**	**3.3**	**8.2**	**9.2**	**11.8**	**15.6**
NPV	**-4.7**	**-7.2**	**-1.2**	**1.0**	**1.4**	**1.9**	**4.3**	**4.3**	**5.0**	**5.9**

				WACC Assumptions	
Sum of NPV ($m)	**10.5**	Cost of Equity	10.7%	WACC	10.0%
Terminal value ($m)	76.6	Risk-free rate	5.5%	Cost Debt	9.5%
Net debt	-3.5	Equity Risk Premium	4.3%	Debt	59%
Equity Value ($m)	**83.6**	Small cap risk premium	2.2%	Equity	41%
		Terminal Growth Rate	3.0%	Beta	0.80

Source: Patersons Securities

The imperative for farmed fish

The depletion of global fish stocks

Every statistical release tells the same story with demand rising, natural supply static or falling and forecasts expecting more of the same. We focus mainly on fish in this report from inland to marine to diadromous (those that move between fresh and sea water) and most statistical comments below relates to these categories. However, the stats for all seafoods, as below, mirrors this commentary.

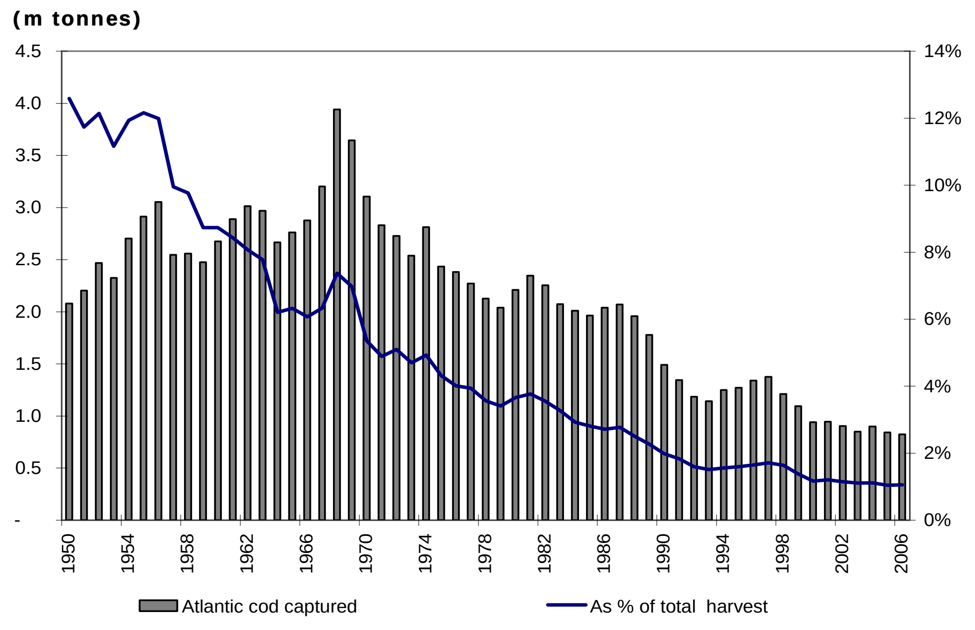
Figure 2: Summary of total seafood demand and supply (including fish)

million tonnes	2006	2007	2008 est.	2008 over 2007 %
Production	**138**	**142.6**	**144.2**	**1.1**
Captured fish	89.6	91.8	91	-0.8
Aquaculture	48.4	50.8	53.2	4.7
Trade (exports US$bn)	**85.9**	**92.7**	**98.8**	**6.6**
Trade volume (live weight)	53.5	55	54.5	-0.9
Total utilization				
Food	110.4	112.3	114.5	1.9
Feed	20.9	20.8	20	-3.8
Other uses	6.7	9.5	9.7	2.6
Per capita food consumption:				
Seafood (kg/year)	16.7	16.8	17.0	0.7
Capture fisheries (kg/year)	9.4	9.2	9.1	-1.5
Aquaculture (kg/year)	7.3	7.6	7.9	3.4

Source: United Nations

Over fishing began to be a problem at the end of the 1960s when Atlantic fishing fleets started to see a rapid decline in cod catches. The 'cod wars' between Britain and Iceland were one of the early examples of rising tension over food security, but sadly this was a war where both sides lost given that they were fighting over a diminishing resource.

Figure 3: The impact of over-fishing – the demise of the Atlantic Cod

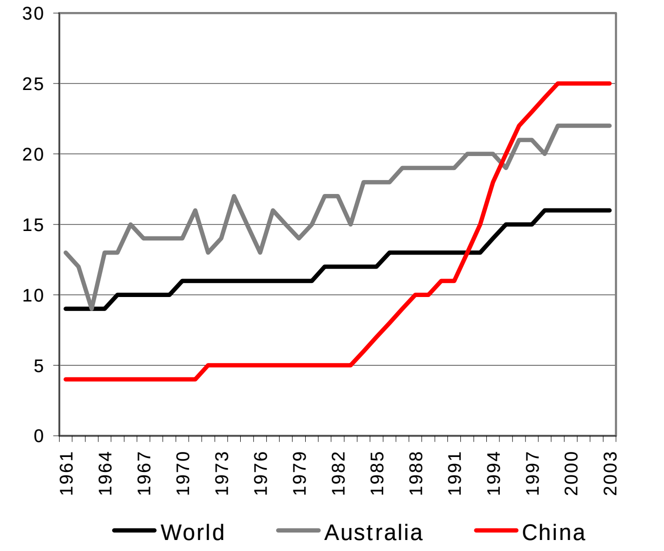


Source: UN Fisheries and Aquaculture Department

This rapid change in the ability of the oceans to provide enough fish reflects the impact of rising demand from both population growth and eating habits to protein rich fish spurred on by greater wealth. Global per capita consumption of fish has risen from 11kg per annum in 1980 to 17kg currently, while global population has risen by 50%.

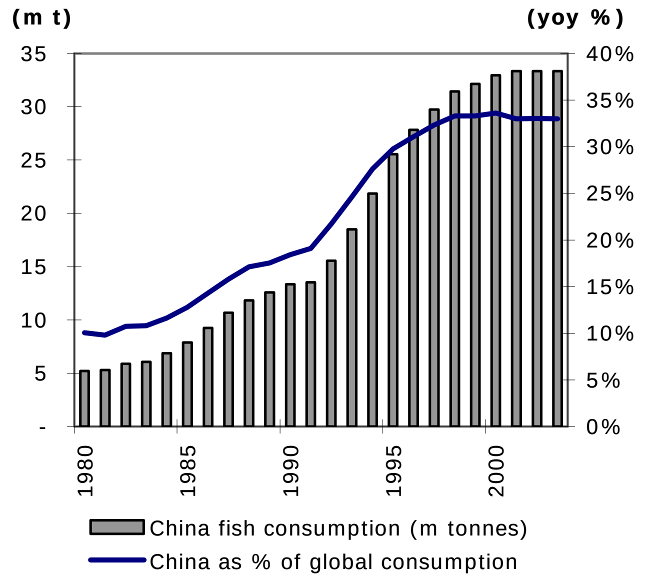
As seen in almost all of the world's resources, China was again a key component of this rising demand, with the rise in consumption from 5m tones of fish in 1980 to 33m tones by the year 2000 accounting for 57% of the rise in global consumption over that 20 year period.

Figure 4: Per Capita Fish Consumption (kg/pa)



Source: UN Fisheries and Aquaculture Department

Figure 5: China's impact on fish consumption

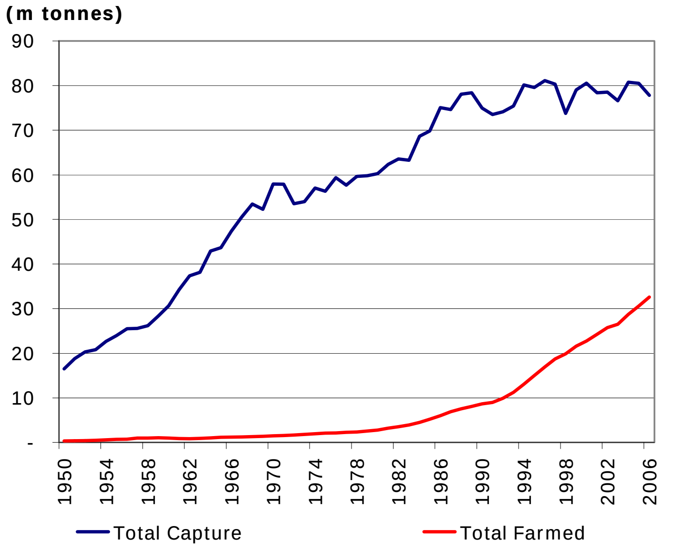


Source: UN Fisheries and Aquaculture Department

However, China was kept company in this trend by most nations of the world, with even Australia seeing its per capita consumption rising 50% since 1980.

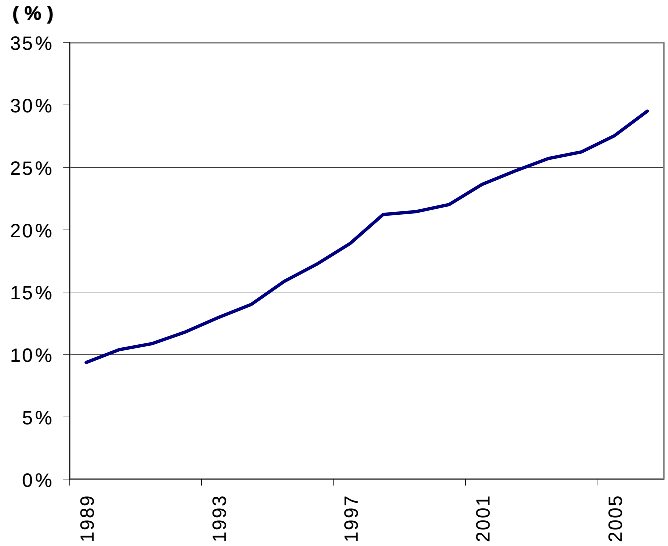
In this rapid escalation of demand the only solution on the supply front has been to sharply increase farmed fish. From the pioneer days of the 60s and 70s, production has risen sharply over the last two decades to now account for 30% of all production.

Figure 6: Global fish harvest – captured & farmed



Source: UN Fisheries and Aquaculture Department

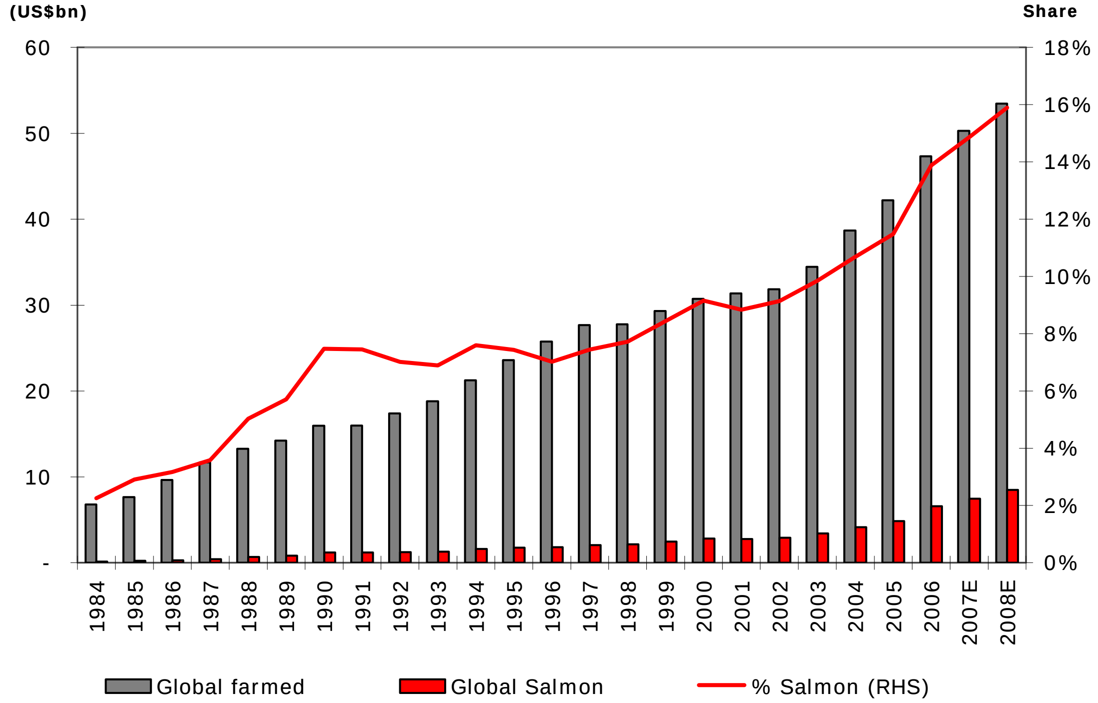
Figure 7: % of global fish harvest farmed



Source: UN Fisheries and Aquaculture Department

This trade is now estimated to be worth US$53bn globally having grown on average at 6.8% per annum over the last 10yrs. Within this, Atlantic salmon farming has grown at 14.8% per annum over the same period and now accounts for some 16% of all farmed fish by value at ~US$8.5bn.

Figure 8: The rapid rise of Atlantic salmon farming



Source: UN Fisheries and Aquaculture Department

Interestingly Atlantic salmon only accounts for 4% of global production by volume, highlighting the 250% price premium it enjoys over the average global price per kg for all fish. In Australia, the largest producer is Tassal (ASX Code: TGR, Market Cap. $270m) which produces over 12,000t per annum from its sea farm at Dover in the south of Tasmania. Results for the first half of the current fiscal year to December 2008 showed an overall average price per kg achieved of A$12, up 4% yoy, although domestic Tassal brand showed a 4% decline to $11.68/kg.

Figure 9: Tassal's 1H09 Salmon stats

	Salmon Vols '000 kg		Salmon Values $m		Value per kg	
	1H08	1H09	1H08	1H09	1H08	1H09
Tassal - Domestic	5,774	6,677	70.0	78.0	12.13	11.68
Superior Gold - Domestic	-	696	-	12.0		17.24
Total Domestic	**5,774**	**7,373**	**70.0**	**90.0**	**12.13**	**12.21**
Export	1,258	598	10.8	5.4	8.55	9.02
Total	**7,032**	**7,971**	**80.8**	**95.4**	**11.49**	**11.97**

Source: Tassal 1H09 report

Of note in this report was the impact that the acquisition of the Superior Gold brand from King Island had on the blended numbers with the brand's average selling price per kg of $17.24 at a 48% premium to Tassal's core product offering.

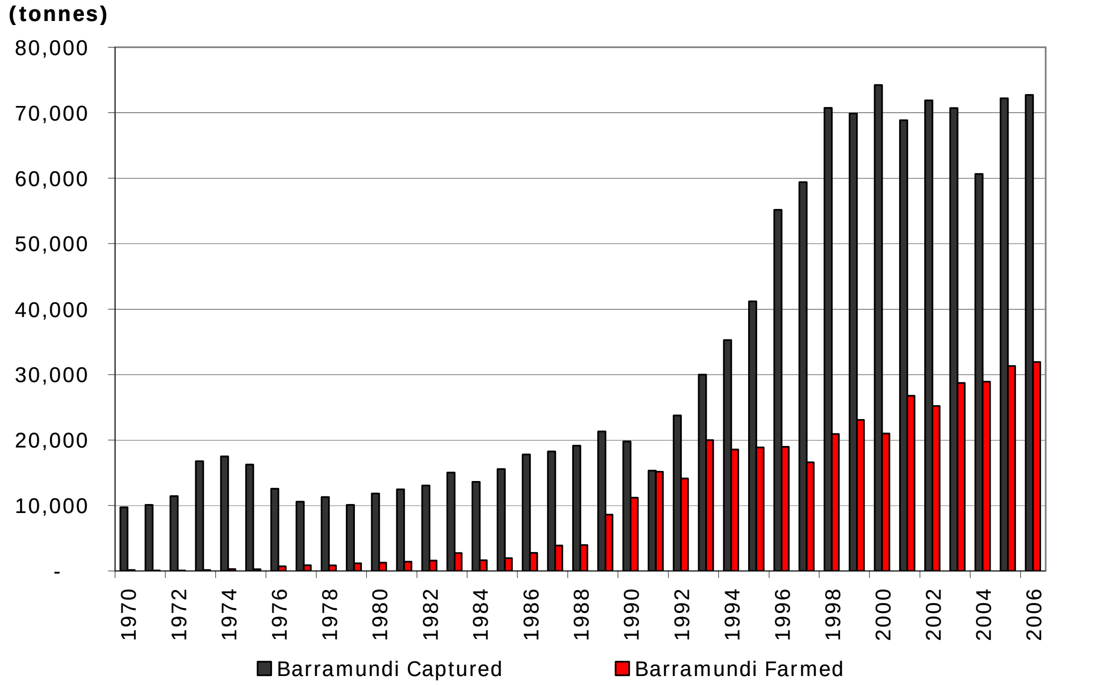
We see Tassal as a useful template for Marine Produce given similarities between the groups with regards marine farming, potential tonnage, the potential impact of branding and price points where our estimated 5yr average selling price for MPA's Barramundi is at $11.14/kg in the domestic market.

Where Marine Produce fits into this picture

The rising trend in farmed Barramundi

Captured Barramundi harvests appear to have reached a global ceiling at a 5yr average of ~70,000t. Conversely, farmed Barramundi has been growing at circa 5.3% CAGR over last 10yrs and now accounts for 30% of total production at some 32,000t.

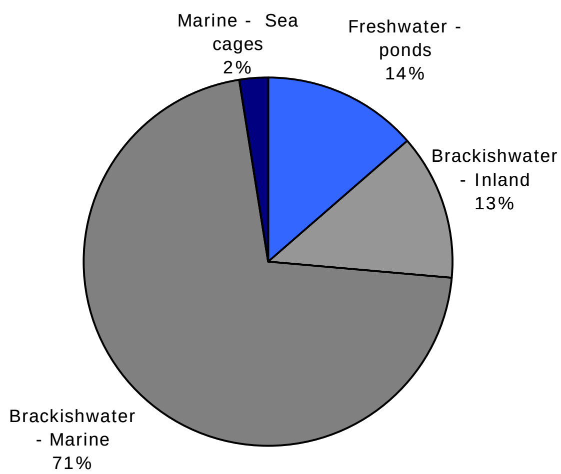
Figure 10: Annual Global Barramundi harvest: 1970-2006



Source: UN Fisheries and Aquaculture Department

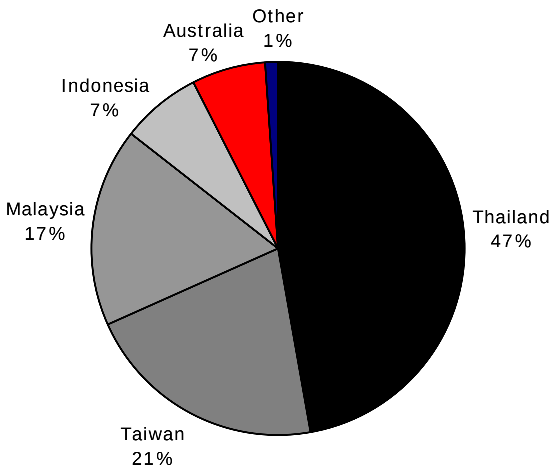
Most of this farmed Barramundi is reared in ponds in Australia and brackish water in the major producing nations in Thailand, Taiwan and Malaysia.

Figure 11: Farmed Barramundi by Environment



Source: UN Fisheries and Aquaculture Department

Figure 12: Farmed Barramundi by Country



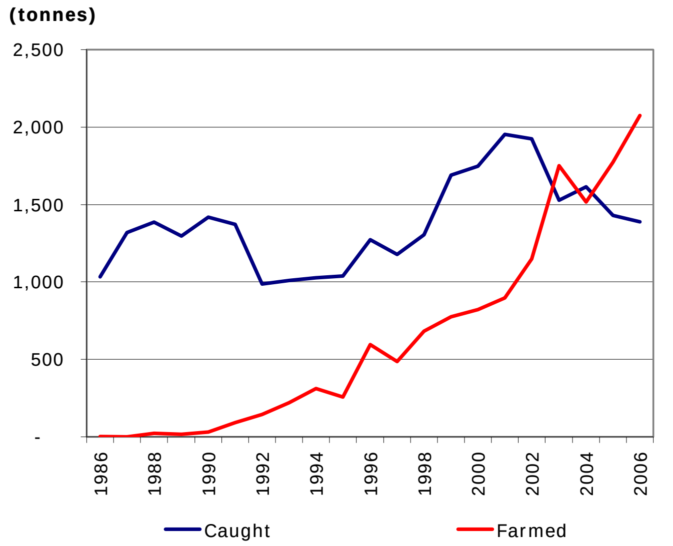
Source: UN Fisheries and Aquaculture Department

In terms of price point, the average price per kg in Asia comes in at circa A$3.60/kg as against the A$8.90/kg in Australia. This reflects in part the difference in domestic per capita income (if adjusting on a PPP basis we would restate the Asian average at A$7.28) but also the higher quality of produce out of the Australian market. This is particularly the case for sea-cage Barramundi, with MPA receiving an 8-15% premium to ruling market prices as it sells through the wholesale channels (the company's main route to market currently).

Australia beginning to catch-up on it's 'National' fish

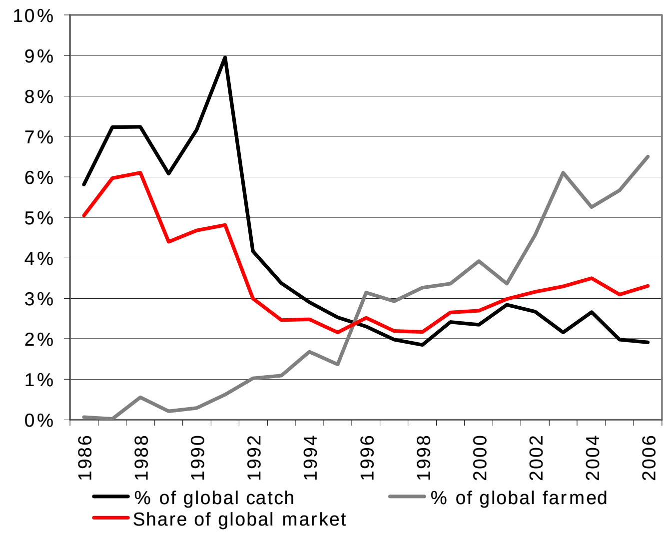
In terms of Australia, farm volumes are showing a more rapid growth rate than the broader market having recorded a 13.3% CAGR in the ten years ending 2006. In terms of market share this has risen from 1% back in 1992 to 6.5% in 2006.

Figure 13: Australian Barramundi production



Source: UN Fisheries and Aquaculture Department

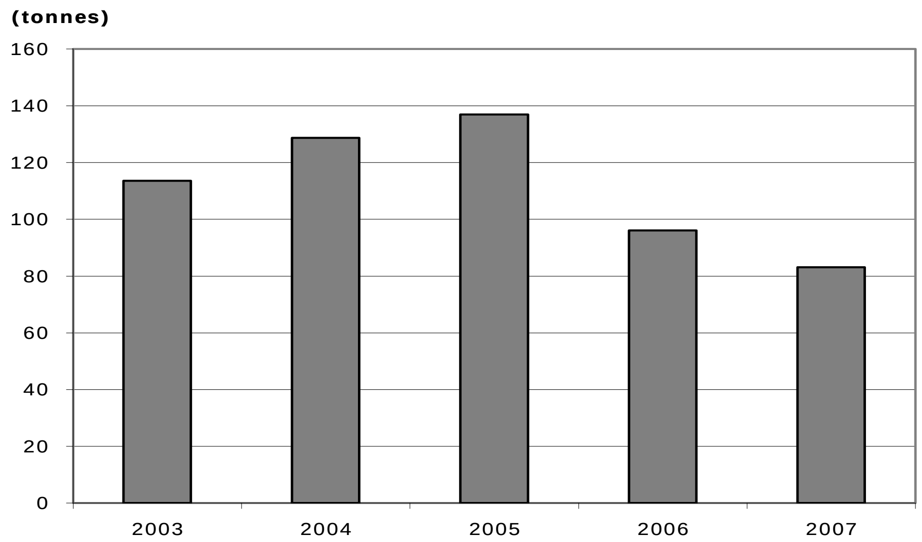
Figure 14: Australia's share of Barramundi



Source: UN Fisheries and Aquaculture Department

However, one criticism that can be levelled at the Australian market is that it tends to be built on the back of small scale operations with the production per enterprise in the Northern Territories and Queensland averaging only 83t (although recent figures are deflated from recent start-ups).

Figure 15: Average Barramundi production per enterprise NT and Qld



Source: Department of Regional Development, Fisheries Status Reports

MPA's differentiating advantages

Against this generic industry structure, MPA offers the two major advantages of location and scale. Its Cone Bay fish farm is located off the Kimberley coast with Derby its main logistics point for distribution and Broome where its onshore management offices are located.

Figure 16: Cone Bay (white circle on map) – location of barramundi fishfarm

Source: Google

Cone Bay, which is some 20km long, 6.6km wide and 90km north of Derby, is recognised for it near pristine conditions given its high tidal range. Government studies carried out in 1998 and 2001 highlighted this quality as well as indicating that there was little reason from a conservation point of view not to exploit this resource.

Figure 17: Cone Bay Government survey's 1998 & 2001

Longitude	**123.578 °E**	**Latitude**	**16.507 °S**
National Land & Water Resources Audit 2001		**Australian Estuarine Database (Digby) Survey 1998**	
Condition	Near Pristine	Estuary Features	Aboriginal & Defence Reserves
Mean Wave Height	0.20 m	Morpho-Hydrological Category	single unconstricted mouth, unbranched channel with no off-channel embayment
Maximum Wave Height	1.80 m	Catchment Area	296.00 km²
Tidal Period	Semi Diurnal	Area of Open Water	5.57 km²
Estuary Length	13.54 km	Tidal Range Category	high
Perimeter	38.71 km	Conservation Value	low
Water Area	11.60 km²	Conservation Threat	none
		Ecological Status	unaffected
		Water Quality Assessment	excellent
		Fisheries Value	low
		Fisheries Threat	none

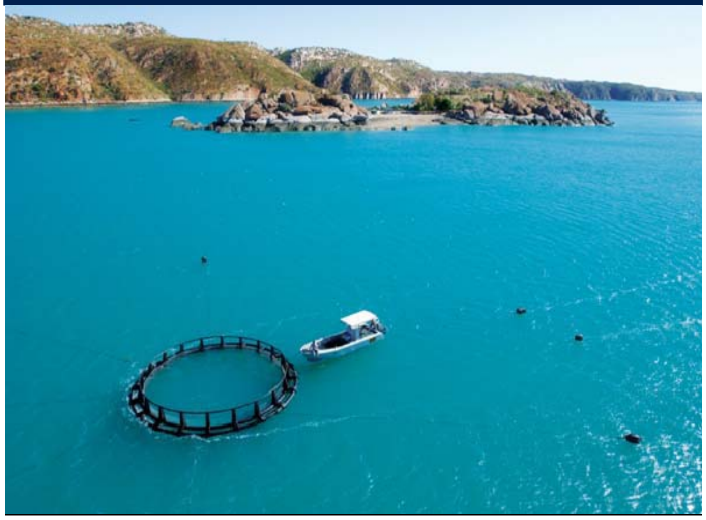
Source: Australian Government

Obviously from an environmental perspective Marine Produce has to demonstrate that their operations do not impact on the bay. The twice daily racing tide, ranging between 7-11m, does this job for them given high flushing rates *(of waste products from the bay*) with 95% of the water flushed within 2 hours. A hydrodynamic and ecological study by Brown and Root Services, funded by the company in 2000, concluded;

'The study ascertained the differences between 'areas' of Cone Bay, these being Western, Central and Eastern ends (also known as Zone 1, Zone 2 and Zone 3 respectively). All simulations demonstrated that the Western End (Zone 1) had extremely efficient flushing capacity with rapid flushing taking only a quarter of a day during neap tide (lowest water movement)…. It was clear from the results that particles originating from Zone 1 tended to be flushed out of Cone Bay during the outgoing tide and taken away by oceanic currents within the King Sound.

This has proven to be the case in actual operations with the required environmental studies showing no impact on the benthic zone (sediment surface and sub-surface layers) below the sea cages.

Figure 18: Turtle Island, MPA's operational base



Source: Company reports

Figure 19: Sea cages as currently arranged

Source: Company reports

As well as being a beneficial location with regards the environment, the strong tidal flows, measured at an average of 0.4-0.5 meters/second, helps keep the fish healthy and in good condition (for flesh texture). As such the risk of disease is substantially reduced on this project, with most control measures relating to barramundi diseases highlighting the importance of environment and water exchange *(See Appendix C).*

From the longer-term perspective for MPA's business we believe that the existing site could support the production of some 5,000 tonnes of fish per annum. Currently, its license number 1465 has received EPA approval for production of up to 1,000t and is awaiting final approvals but with the licensing process usually a rolling programme as farms gear up capacity.

This expansion of capacity is important in terms of leveraging economies of scale. Economic models of barramundi farming in Australia have estimated the break-even cost for a small (50 tonnes/yr) farm to be $A 9.25/kg, and the break-even cost for a 200 tonnes/yr farm at $A 6.90/kg. Larger farms (>1 000 tonnes/yr) variable production costs are likely to be around $A 6–7/kg.

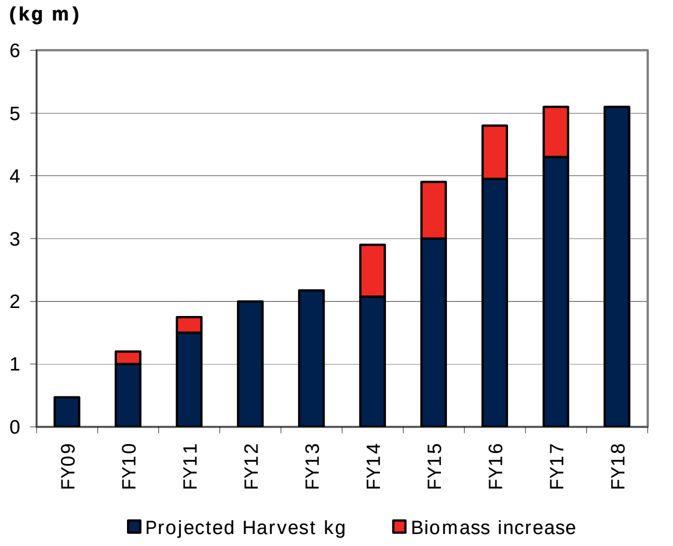
Figure 20: Estimated Barramundi production cost breakeven points

Farm size	tonnes	50	200	>1000
Breakeven cost	$/kg	9.25	6.90	6.50

Source: Queensland Department of Primary Industries and Fisheries

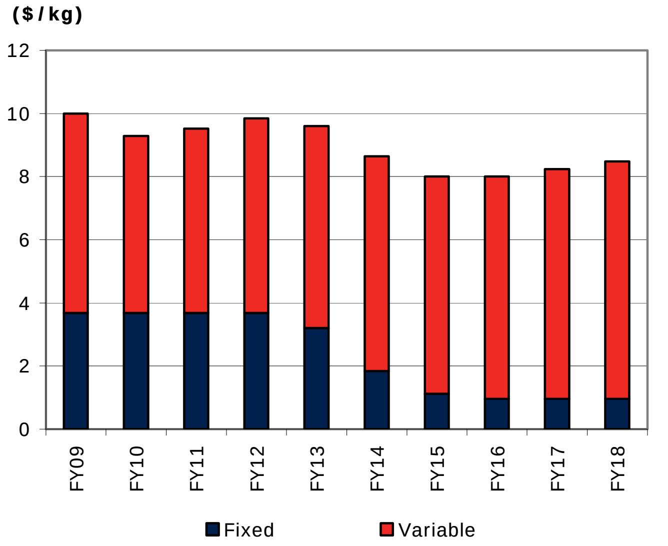
With regards to our modelling of MPA, we have used an average of $6.50/kg variable production cost plus $2.38/kg fixed cost over the build-out phase to 5,000t production in 2018. Of note obviously is the significant decline in fixed unit costs going forward in part reflecting the change in fixed asset depreciation charges as well as the increase in biomass.

Figure 21: Patersons' projected production to 2018



Source: Company data, Patersons Securities

Figure 22: Projected unit costs to 2018



Source: Company data, Patersons Securities

These projections vary from the company's projections posted to the ASX on November 5th reflecting a slower build out to the 2,000t production marker expected in 2012. In part this reflects the set back in biomass gains from a reduced feeding programme seen in the first half of the year (see Interim results review later in this document). While the company could win back this biomass 'loss' by adding fingerling numbers to its now resumed normal feeding regime, it is too early to assess fully how this will impact in the short-term. This said, we still believe that with appropriate funding, the business can hit the 2012 harvest target of 2,000t and go on to reach 5,000t of production by 2018.

This adjustment to expected biomass gains obviously has an impact on future harvesting decisions (as in the average weight and/or numbers that MPA is willing to take from the waters) but also impacts more immediately on stated results. This reflects the fact that the change in the fair value of biological assets is recognised in the P&L under accounting rules for agricultural & aquaculture concerns. This was summarised by MPA in a note to the last set of accounts that stated;

'Biological assets relating to aquaculture activities and products are stated at fair value less estimated point-of-sale costs, with any resultant gain or loss recognised in the income statement. Point-of-sale costs include all costs that would be necessary to sell the assets, including costs necessary to get the assets to market. As the fair value of the assets is based on its present location and condition, the company applies direct costing to estimate fair value of barramundi in cages where they have not yet reached a saleable size.'

As such we saw a sharp reverse in the P&L contribution from this source from a gain of $2.4m in 1H08 to a loss of $1.8m in this last reported half. We look for a recovery in the current period as explained above, but this trend highlights the importance to the business of managing biomass growth both in terms of fish numbers but also from sensitivity to feed conversion and genetic growth rates.

Figure 23: Impact of Biomass changes on MPA's recent results

$m	2007	1H08	2H08	2008	1H09	2H09	2009F
Sales	0.25	0.79	2.45	3.25	2.27	2.73	5.00
Biomass fair value	1.99	2.42	0.71	3.13	-1.84	1.84	0.00
Other	0.39	0.02	0.41	0.43	0.02	0.38	0.40
Total Revenues	**2.63**	**3.23**	**3.57**	**6.80**	**0.45**	**4.95**	**5.40**
Costs	-5.71	-3.58	-4.79	-8.36	-4.65	-4.75	-9.40
EBITDA	**-3.08**	**-0.35**	**-1.22**	**-1.56**	**-4.20**	**0.20**	**-4.00**

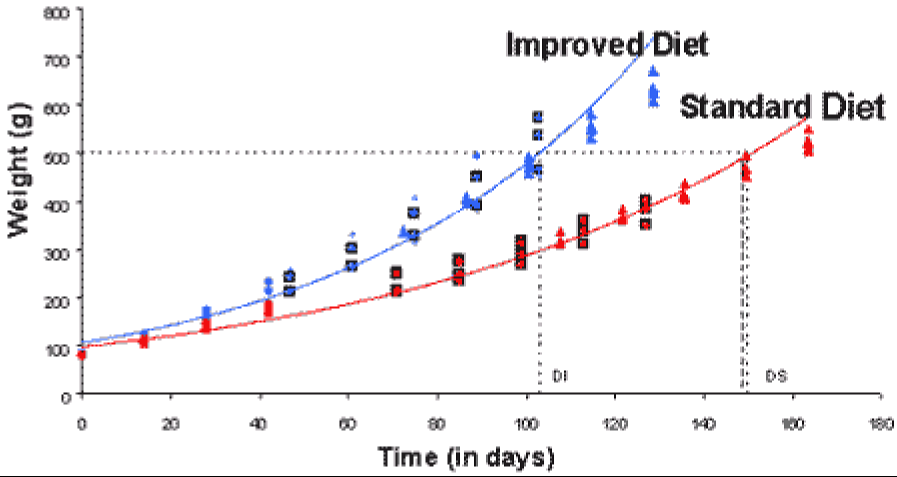
Source: Company data, Patersons Securities

The impact of Biomass growth rates

As stated earlier our forecasts and valuations are based on current growth rates, assuming a fish reaches the targeted 3kg harvest size in two years based on current feed conversion rates of circa 1.8:1. Obviously any change in either of these assumptions will have a material impact on the economics of this business.

Work on diet is reasonably well advanced with the chart below showing the 33% gain in days required to reach a target 500g weight (100 days vs. 150 days in this instance) seen by applying nutrient dense diets in a research study carried out in the year 2000.

Figure 24: Growth rates comparison at 28oC on standard and nutrient-dense diets.



Source: Barramundi nutrition studies; Fisheries Research Development Council (FRDC),

More interesting from a longer-term perspective will be advances made in genetic management in terms of further improving growth rates. The history of selective breeding goes back over many years but the advances in genetic research starting in the 1940s has yielded significant improvements across many sectors and species.

Figure 25: History of growth rate improvements in farmed stock

Growth rate improvements in livestock & poultry over last 60years	
Poultry	275%
Dairy	250%
Pork	200%
Growth rate improvements in temperate fish over last 25yrs	**Rate per generation**
Channel Catfish	16%
Rainbow Trout	30%
Atlantic Salmon	30%

Source: Australian Barramundi Farmers Association

In this context, genetic management of tropical finfish is well behind progress made elsewhere. The technical report, *Selective Breeding in Barramundi* for the Australian Barramundi Farmers Association, highlighted that at that time (August 2002), the only programme was that for tilapia which had shown genetic progress at some 14-23% per generation.

As such it called for a significant push in this direction for the barramundi industry, highlighting the fact that the high fecundity of the species, with a young 500mm female laying up to 1.5m eggs (as opposed to tilipia's several hundred and salmon's several thousands), offers the opportunity for only a few selected fish to be able to supply the fingerling market at any one time.

Accordingly it was felt that a selective breeding programme could have a high impact on the business, potentially doubling the growth rate over a 20yr period. In this instance it would reduce the time to market of MPA's target fish to one year only. Given this we see MPA's proposed hatchery JV in Broome as a positive step in progressing this project as well as improving costs both from a transport and vertical integration perspective (with its current supply coming from Darwin).

The impact on DCFs of improved Feed Conversions Ratios

Additionally, as well as accelerating growth rates, research goes on in terms of improving feed conversion rates. Barramundi have achieved FCRs of 1.0–1.2:1 under experimental conditions which if applied to MPA's projected 5,000t projection in 2018 would reduce its feed bill by some $5.2m at today's prices, improving that end year's NPAT estimate by 21%. Applying the same adjustment over the current project's DCF would enhance the value by some 38% indicating the importance that research in this area is likely to have on longer term valuations for the industry.

Figure 26: Impact on DCF valuations of improved feed conversion ratios

FCRs	Cumulative feed tonnes to 2018	DCF $m
1.8 : 1	49,836	84
1.5 : 1	41,530	97
1.3 : 1	35,993	106
1.1 : 1	30,455	115

Source: Patersons Securities

Why improved margins will not be given away in pricing

In many industries improvements in productivity or cost reductions have been passed onto consumers in order to maintain market share or enhance utilisation rates (one thinks of airlines in particular in this instance). In terms of our pricing assumptions for barramundi we would maintain our 10yr long-term average price of $11.88/kg even as we began to see some early gains from genetic management programmes as described above.

In part this reflects a number of key assumptions:

1) Future Barramundi supply is unlikely to run ahead of demand both from a specific fish perspective and from the broader need for increased farmed fish production across the space.

2) Scale will allow MPA to access higher value markets. For example they have already had some enquiries from the US where previous suppliers where selling in at close to US$11/kg or equivalent to A$17/kg currently.

3) Scale will also lead MPA to develop a fillet processing capability. Current weekly specials on offer at the Sydney Fish market show prices for fillets at between $24.90-31.90kg

4) Salmon pricing has been quite stable over recent years despite the advances made in genetics.

Figure 27: Comparing salmon & barramundi prices

	2004	2005	2006	2007	2008
Salmon	12.81	11.85	11.63	11.68	11.92
Barramundi	8.32	8.10	10.16	9.89	9.50

Source: Salmon prices from Tassal report & accounts, Barramundi prices from Sydney fish market

In this context, we believe our assumptions are conservative taking no change in product mix or a developing export margin into account.

Tiwi Island proposal could double the business

The company has signed a 3mth exclusive contract with the Tiwi Island Land Council to review the opportunity to JV a new barramundi project off the island's coast. While barramundi sea cage farming is not new to the Islands, given Marine Harvest presence there until 2006, we see the prospect of MPA's entry into this market as an exciting opportunity given:

1) the attraction of the location both in terms of water quality and the logistics to Darwin,

2) that the infrastructure investment for the farm (moorings, set-up cages, feeding equipment etc.) would be made by the Council,

3) that Darwin is already the transit point for MPA's product through to the East Coast market.

4) that Darwin is a logical origination point for developing an export business (into Asia/US).

5) And that securing this site assures MPA's position as the leading marine producer of barramundi.

Figure 28: The Tiwi Islands – 80kms north of Darwin

Source: Google

Some may see this proposal as reviving the old Marine Harvest farm which folded (to some extent literally) in 2006 having twice lost fish and equipment from storm damage. However, Marine Harvest ran their operations in Port Hurd, on the west coast of Bathurst Island, in a location which offered ideal water quality and temperatures but which exposed it to tidal flows of over 4 knots during spring tides and even higher during cyclones. The strain on nets and moorings was huge, resulting in the two catastrophic failures of equipment that ended the business.

With regards MPA's proposal, the site under discussion is Snake Bay, located on the north coast of Melville Island, near Milikapiti, the main town. Tidal range is significantly lower at around 3.5 metres, and the site is in a much wider section of water were flows do not exceed rates that suit marine sea cage farming. Water quality is very similar and should promote even better growth than experienced at Cone Bay due to higher winter temperatures. Other major advantages of this location are that it has a township of over 300 people in the immediate vicinity, it has access to mains power, has an all weather road to Paru (on the south side of the island) which has a regular barge service to Darwin. Overall this is a significant development for MPA and one that would have a major positive impact on valuations to the tune of $93m assuming funding can be found to take production to 5,000t by 2018.

Why $20m and what it means for the business

We started the document with the comment that MPA requires $20m to underwrite the development of the business to 2018, by which time they should reach an annual production of 5,000t. More accurately, the bulk of this investment is needed to grow the business to 2,000t of production by 2012, at which point the business becomes cash generative at that level before the next phase of biomass expansion.

What is this to be used for? Mainly for the grow-out of the biomass, i.e. financing the two year cycle between acquiring a growing numbers of fish and up to the time that they are harvested. In addition, monies would be spent to improve feeding automation, hatchery expansion and more cages. The later and important development of a processing facility for fillets would be funded internally as the business would be free cash flow generating by the time this investment became necessary.

As it stands currently, we estimate the cash flow requirements as below with some $18.55m required to end 2011 to fund the business and payoff outstanding debts. The additional $1.45m reflects funding needs in the first half of the 2012 year.

Figure 29: Forecast cash requirements over 1st phase of biomass grow-out

	1st phase grow-out				2nd phase grow-out					
	2009	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Harvest (t)	472	1,000	1,500	2,000	2,174	2,075	3,000	3,950	4,300	5,100
End biomass (t)	750	1,200	1,750	2,000	2,174	2,900	3,900	4,800	5,100	5,100
Cash receipts	4.40	9.55	14.68	20.07	22.36	21.87	32.41	43.74	48.81	59.34
Suppliers & employees	-8.00	-10.36	-14.74	-16.35	-17.98	-19.95	-25.38	-30.70	-33.41	-34.76
Cash from operations	**-3.61**	**-0.82**	**-0.06**	**3.71**	**4.38**	**1.92**	**7.03**	**13.05**	**15.40**	**24.58**
Others	-0.26	0.64	0.11	-0.26	-0.46	0.07	0.12	-4.38	-6.04	-6.85
Operating cash flows ($m)	**-3.86**	**-0.18**	**0.05**	**3.45**	**3.92**	**1.99**	**7.15**	**8.67**	**9.36**	**17.73**
Capex ($m)	-1.48	-7.39	-2.17	-1.96	-2.19	-4.11	-3.45	-4.22	-4.37	-3.12
Cashflow before financing	**-5.34**	**-7.56**	**-2.11**	**1.49**	**1.73**	**-2.12**	**3.70**	**4.45**	**4.99**	**14.61**
Cumulative funding required	-5.34	-12.90	-15.02							
Debt at end 2009 estimated			-3.53							
Funding requirement to end 2011			**-18.55**							

Source: Patersons Securities

In terms of the specific items we estimate the breakdown of some of the key components as follows;

Figure 30: First phase estimated capex and cost of biomass grow-out to 2012

Spend on:	**2009**	**2010**	**2011**	**2012**	**Cumulative**
Biomass expansion	3.5	5.0	3.6	0.0	**12.1**
Hatchery/Nursery	0.3	2.5	0.3	0.0	**3.1**
Production capex (cages, feeders)	1.0	2.6	0.6	0.2	**4.4**
Overhauls & maintenance	0.1	0.3	0.5	0.5	**1.4**
Licensing	0.4	0.4	0.4	0.4	**1.4**
For Year	**5.25**	**10.75**	**5.35**	**1.0**	**22.4**
Cumulative	**5.25**	**16.00**	**21.35**	**22.4**	

Source: Company data, Patersons Securities

Without funding management has two options, namely to wind the business up or to run the operation to a much lower targeted harvest. Obviously neither of these exploits the opportunity we believe is inherent in this business.

Review of 1H09 results

The headline result was disappointing as it reflected the decline in biomass as discussed previously with the overall swing from half year to half year of this line some $4.26m negative. This reflected the ration feeding the fish stock with this put down to:

- reduced access to development capital in tightening debt and equity markets
- Flooding and associated road closures severely impacting the ability of road trains to deliver fish feed from the Eastern States to Northern Western Australia
- Inflexible terms of fish feed supplier.

Other than this negative, the underlying performance was positive in terms of the increase in harvest from 79,000kg in 1H08 to 237,000kg in 1H09 and in average price which came in at $9.57kg as against $10 last year, only 4% down on a 200% increase in volumes. Costs did rise by 30% yoyo reflecting the gearing up for future expansion and higher feed costs from underlying input inflation as well as from disruption to sourcing.

Figure 31: Summary of 1H09 P&L

	1H08	2H08	2008	1H09	2H09	2009F
Revenue from sales	0.79	2.45	3.25	2.27	2.73	5.00
Gain from biomass fair value	2.42	0.71	3.13	-1.84	1.84	0.00
Other income	0.02	0.41	0.43	0.02	0.38	0.40
Sales in P&L	**3.23**	**3.57**	**6.80**	**0.45**	**4.95**	**5.40**
Raw materials	-2.01	-3.23	-5.24	-2.54	-3.01	-5.55
Personnel	-1.00	-0.81	-1.81	-1.25	-1.00	-2.25
Admin. Marketing	-0.57	-0.75	-1.32	-0.87	-0.73	-1.60
Total Expenses	**-3.58**	**-4.79**	**-8.36**	**-4.65**	**-4.75**	**-9.40**
Total EBITDA	**-0.35**	**-1.22**	**-1.56**	**-4.20**	**0.20**	**-4.00**
Depreciation & Amortisation	-0.22	-0.19	-0.42	-0.22	-0.17	-0.39
EBIT	**-0.57**	**-1.41**	**-1.98**	**-4.43**	**0.03**	**-4.39**
Interest income	0.02	0.01	0.03	0.01	0.01	0.02
Interest paid	-0.06	-0.54	-0.59	-0.08	-0.10	-0.18
Pre-tax profits	**-0.60**	**-1.94**	**-2.54**	**-4.50**	**-0.05**	**-4.55**
Taxation	0.01	-0.01	0.00	0.63	0.00	0.63
Extraordinary, discontinued	-0.95	-0.06	-1.01	0.00	0.00	0.00
NPAT reported	**-1.55**	**-2.00**	**-3.55**	**-3.87**	**-0.05**	**-3.92**
NPAT continuing	**-0.60**	**-1.94**	**-2.54**	**-3.87**	**-0.05**	**-3.92**

Source: Company report, Patersons Securities

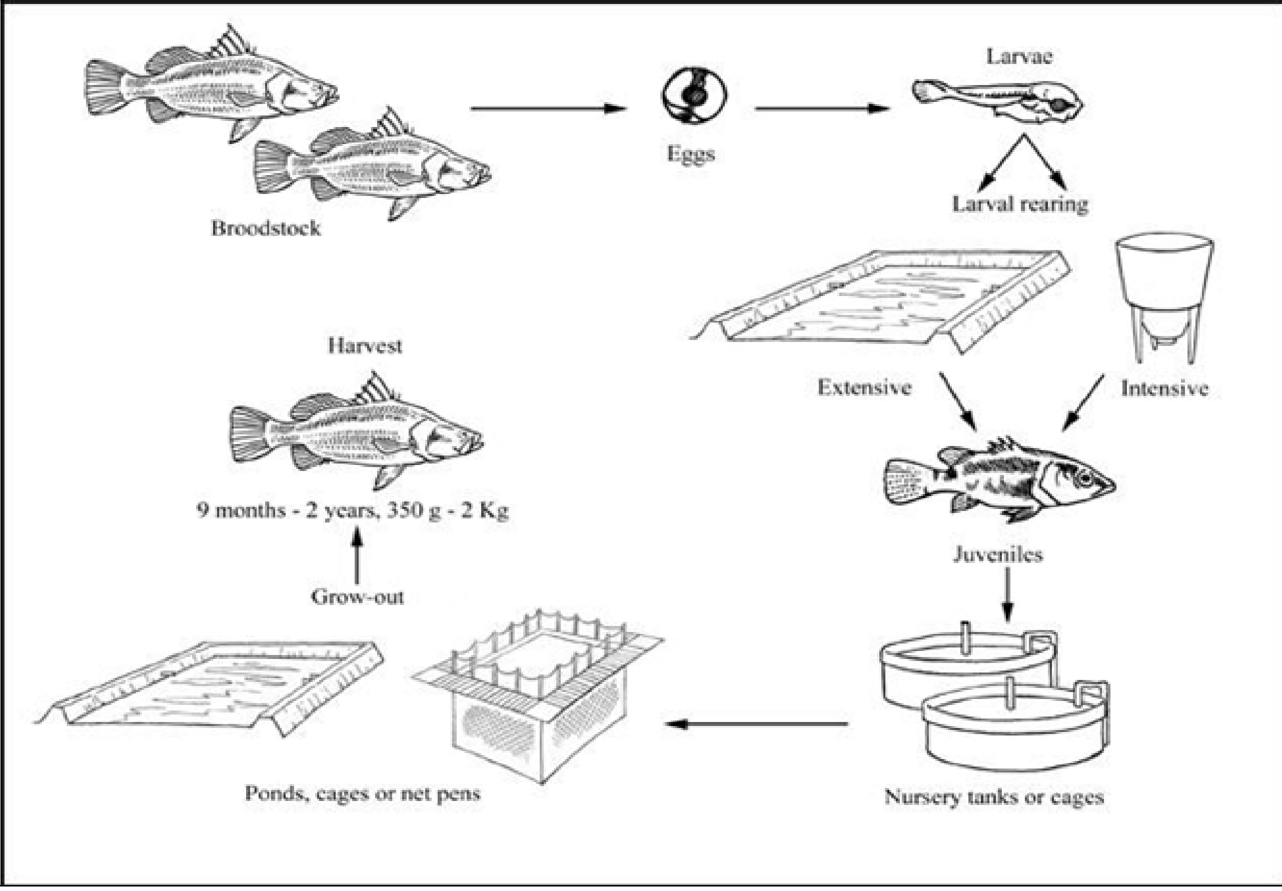
At the end of the day, however, what the results highlighted is that this is an attractively viable business in terms of product but one that needs funding to complete its grow out phase.

As we stated at the beginning of this document, significant value can be created if this funding was to be secured, with our initial valuation sensitive to the upside with regards the Tiwi Island opportunity and improvements in fish genetic management.

We believe that the existing management team has the expertise and experience to take the business to a combined 10,000t production level over the next ten years with this set to create significant economic value. Additionally, there are substantial opportunities for additional phases thereafter, especially north of Cone Bay This is an exciting opportunity for a business to emerge as an industry leader and investors should keep MPA on their radar screens up to its funding.

Appendix A: Barramundi Production Cycle

Figure 32: Marine Produce's target harvest weight is 3kg at 2yrs of age



Source: FAO

Hatchery: fed on rotifers from day two until day 12 and on brine shrimp from day eight onwards. Both rotifers and brine shrimp fed to barramundi are cultured on microalgae or commercial enrichment products to increase levels of highly unsaturated fatty acids.

Nursery: Barramundi juveniles (1.0–2.5 cm) are fed on small pellets for between 30 to 45 days; once the fingerlings have reached 5–10 cm TL they can be transferred to grow-out ponds. Cannibalism can be a major problem during the nursery phase as barramundi will cannibalise fish of up to 2/3rds of their own length. This is reduced by grading the fish at regular intervals (usually at least every seven–ten days) to ensure that the fish in each cage are similar in size.

Grow out phase: Most barramundi culture is undertaken in net cages. Both floating and fixed cages are used; these range in size from 3×3 m up to 10×10 m, and 2–3 m depth. Stocking densities generally range from 15 to 40 kg/m^3, although densities may be as high as 60 kg/m^3. Generally, increased density results in decreased growth rates, but this effect is relatively minor at densities under about 25 kg/m^3. Barramundi farmed in recirculation production systems are stocked at a density of about 15 kg/m^3.

Pellet feeding occurs twice a day in the warmer months and once each day during winter. Barramundi have achieved FCRs of 1.0–1.2:1 under experimental conditions, but in commercial farm conditions FCRs of 1.6–1.8:1 are usual. FCR varies seasonally, often increasing to over 2.0:1 during winter.

Harvesting: The fish are placed in a humane fish stunning machine prior to be packed in an ice slurry to preserve flesh quality. In Australia, most farms do not process the fish, but sell them 'gut in'. Some larger Australian farms have processing facilities to process fillet product from larger (2–3 kg) fish. Fresh barramundi is generally transported packed in plastic bags inside styrofoam containers with ice.

Appendix B: Farmed Production – 1997-2006.

Figure 33: Asian / Oceania Farmed Barramundi by Country

County	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Kg produced from farms										
Thailand	4,090	6,812	6,056	7,752	8,004	11,032	12,230	13,588	14,219	15,107
Taiwan	5,673	5,733	4,979	3,926	4,236	4,053	4,811	4,983	7,862	6,664
Malaysia	3,487	5,246	5,210	3,428	4,061	4,230	4,211	4,001	4,191	5,519
Indonesia	2,483	2,039	5,741	4,720	9,305	4,461	5,483	4,663	2,935	2,183
Australia	487	683	775	822	898	1150	1750	1517	1775	2075
Singapore	243	235	241	305	173	157	179	77	180	156
Other	71	114	44	15	63	107	29	59	139	205
Hong Kong	72	71	34	18	5	4	6	-	-	-
Total	**16,606**	**20,933**	**23,080**	**20,986**	**26,745**	**25,194**	**28,699**	**28,888**	**31,301**	**31,909**
US$'000 value of farmed barramundi										
Thailand	13,325	16,506	16,319	18,855	17,010	24,568	28,071	30,982	35,579	37,231
Taiwan	16,908	17,013	14,486	11,156	10,710	9,412	13,185	13,260	18,592	15,632
Malaysia	16,189	26,725	16,205	11,340	12,600	12,345	12,966	12,323	12,439	17,396
Indonesia	12,415	10,195	28,705	23,600	41,872	11,388	30,910	7,228	3,463	3,056
Australia	3,780	4,325	5,046	4,883	4,366	5,398	10,484	9,889	11,877	12,928
Singapore	1,542	1,126	1,209	1,501	724	743	975	374	1,025	886
Other	569	744	256	77	291	560	213	319	644	1,255
Hong Kong	433	303	213	80	19	13	21	-	-	-
Total	**65,161**	**76,937**	**82,439**	**71,492**	**87,592**	**64,427**	**96,825**	**74,375**	**83,619**	**88,384**
Average US$/$/kg										
Thailand	3.26	2.42	2.69	2.43	2.13	2.23	2.30	2.28	2.50	2.46
Taiwan	2.98	2.97	2.91	2.84	2.53	2.32	2.74	2.66	2.36	2.35
Malaysia	4.64	5.09	3.11	3.31	3.10	2.92	3.08	3.08	2.97	3.15
Indonesia	5.00	5.00	5.00	5.00	4.50	2.55	5.64	1.55	1.18	1.40
Australia	7.76	6.33	6.51	5.94	4.86	4.69	5.99	6.52	6.69	6.23
Singapore	6.35	4.79	5.02	4.92	4.18	4.73	5.45	4.86	5.69	5.68
Other	8.01	6.53	5.82	5.13	4.62	5.23	7.34	5.41	4.63	6.12
Hong Kong	6.01	4.27	6.26	4.44	3.80	3.25	3.50	-	-	-
Average	**3.92**	**3.68**	**3.57**	**3.41**	**3.28**	**2.56**	**3.37**	**2.57**	**2.67**	**2.77**

Source: FAO

Appendix C: Barramundi diseases control measures

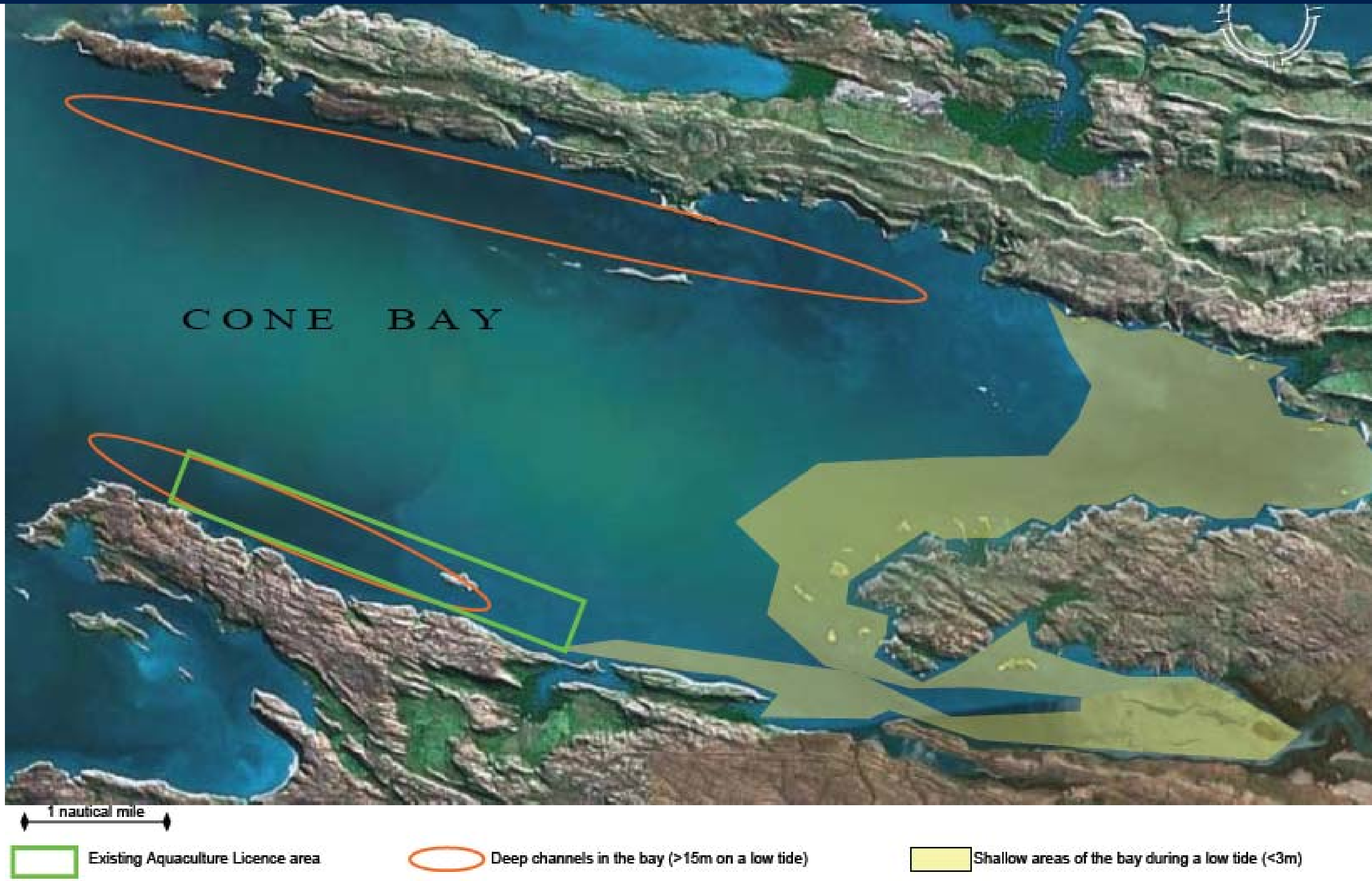
Figure 34: Selection of Barramundi diseases and control measures

DISEASE	TYPE	SYNDROME	MEASURES
Bacterial haemorrhagic septicaemia	Bacteria	Freshwater fish with irregular reddened skin ulcerations; lethargy; anorexia; reddened abdominal fluid; pale gills; associated with poor environment & skin trauma	**Improved environment;** antibiotic treatment
Bacterial gill disease	Bacteria	Swimming at water surface; gulping; rapid opercular movement; excess mucus on gills; white patches on gills; most commonly occurs in nursery phase	**Improve water quality;** treatment with salinity reversal, potassium permanganate or quaternary ammonium baths; increase water exchange; reduce stocking density
Integumentary bacteriosis	Bacteria	Irregular reddened skin ulcerations; loss of scales; associated with poor environment & skin trauma	**Improved environment;** increased water exchange
Fin and tail rot	Bacteria	Erosion of soft tissue in fins and tail; may extend to involve entire tail & caudal peduncle	**Improve environment**; reduce stocking density
Lymphocystis	Virus	Wart-like growths on skin & fins; generally only fatal if infection severe & associated with very poor environmental conditions	Removal of infected fish**; improved environment**
Streptococcosis	Bacterium	Darkened fish; anorexia; pale gills; reddened abdominal fluid; reddened abdominal organs & inner wall	Antibiotic treatment; vaccination
Trichodiniasis	Protozoa	Swimming at water surface; rapid opercular movements; excess gill mucus; typically follows cold water temperatures, high organic loads & high stocking densities	**Increase water exchange**; treatment with salt or formalin bath
Vibriosis	Bacteria	Marine fish with darkening; lethargy; anorexia; reddened ulcerations on body; reddened abdominal fluid; associated with nursery systems, poor environment & skin trauma	**Improved environment;** antibiotic treatment

Source: FAO

Appendix D: Existing Aquaculture licence area

Figure 35: Map of MPA's Licence area in Cone Bay and areas of deep channels (suitable for sea cages)



Source: Public Environmental Review Document, April 2008

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Marine Produce Australia - assuming debt funded **$0.03**

Divisional breakdowns	2008A	2009E	2010E	2011E
Revenues				
Harvest ('000 kg)	363	472	1,000	1,500
Average $ per kilo	8.9	10.6	10.9	11.1
Sales to customers ($m)	**3.2**	**5.0**	**10.9**	**16.7**
Biomass Increase ('000 kg)	522	0	200	250
Cost per $ per kilo	6.0	0.0	7.2	7.4
Value to P&L ($m)	**3.1**	**0.0**	**1.4**	**1.8**
Others	0.4	0.4	0.4	0.4
Total Revenues	**6.8**	**5.4**	**12.7**	**18.9**
Raw materials	-5.2	-5.6	-7.2	-10.0
Personnel	-1.8	-2.3	-3.3	-3.5
Admin. Marketing	-1.3	-1.6	-1.7	-1.8
Others	0.0	0.0	0.0	-2.0
Expenses	**-8.4**	**-9.4**	**-12.2**	**-17.3**
EBITDA	**-1.6**	**-4.0**	**0.5**	**1.6**

The Early Profits Phase:

	2012E	2013E	2014E	2015E
Sales to customers ($m)	22.8	25.4	24.9	36.9
Value of biomass ($m)	0.0	0.0	6.5	7.3
Total Revenues	**23.2**	**25.8**	**31.8**	**44.6**
Expenses	-19.2	-21.1	-23.4	-29.8
EBITDA	**4.0**	**4.7**	**8.4**	**14.8**
Depreciation	-0.9	-1.0	-1.1	-1.3
Net interest	-0.9	-0.9	-0.9	-0.9
Taxes	0.0	0.0	0.0	-1.1
NPAT	**2.2**	**2.8**	**6.4**	**11.5**
EPS cents	**2.0**	**2.6**	**5.8**	**10.6**

Balance Sheet ($m)	2008A	2009E	2010E	2011E
Cash	0.3	0.5	0.9	1.8
Receivables	1.3	1.7	4.0	6.0
Inventories	0.2	0.4	1.0	1.5
Biomass	5.4	5.0	12.3	18.5
Fixed Assets	3.9	5.0	11.7	13.1
Intangibles	0.5	0.5	0.5	0.5
Other Assets	0.0	1.3	1.3	1.3
Total Assets	**11.7**	**14.4**	**31.7**	**42.6**
Creditors	2.5	3.0	7.1	10.5
Current Borrowings	0.0	0.0	0.0	0.0
Non-current Borrowings	1.0	4.0	12.0	15.0
Other Liabilities	0.1	0.1	6.0	10.6
Total Liabilities	**3.6**	**7.1**	**25.1**	**36.1**
Net Assets	**8.1**	**7.3**	**6.6**	**6.6**
Shareholders Funds	**8.1**	**7.3**	**6.6**	**6.6**

Board of Directors & Sub. Shareholders

Name	Position
Miles Kennedy	Non-Executive Chairman
John Hutton	Non-Executive Director
Dr. Tor Theunissen	Independent Non-Executive Director
Prof. Mehdi Doroudi	Independent Non-Executive Director

Shareholder	Shares(m)	%
Hutton Family	26.28	24%
Lasborough Investments	21.53	20%
Weybridge PTY	13.93	13%
Top 10	77.5	71%

Year End June 30

Profit & Loss ($m)	2008A	2009E	2010E	2011E
Total Income	**6.8**	**5.4**	**12.7**	**18.9**
Employee costs	-1.8	-2.3	-3.3	-3.5
Other costs	-6.6	-7.2	-8.9	-13.8
EBITDA	**-1.6**	**-4.0**	**0.5**	**1.6**
Depreciation	-0.4	-0.4	-0.7	-0.8
EBIT	**-2.0**	**-4.4**	**-0.1**	**0.8**
Interest received	0.03	0.02	0.03	0.05
Interest paid	-0.6	-0.2	-0.6	-0.9
Operating Profit	**-2.5**	**-4.5**	**-0.7**	**-0.1**
Tax expense	0.0	0.6	0.0	0.0
NPAT	**-2.5**	**-3.9**	**-0.7**	**-0.1**
EPS Cents	**-6.8**	**-4.6**	**-0.6**	**-0.1**
Recurrent EPS cents	**-4.9**	**-4.6**	**-0.6**	**-0.1**

Cash Flow ($m)	2008A	2009E	2010E	2011E
EBITDA	**-1.6**	**-4.0**	**0.5**	**1.6**
Interest paid	-0.1	-0.2	-0.5	-0.9
Income tax paid	0.0	0.0	0.0	0.0
Working capital change	0.0	-0.1	1.2	1.0
Other	-2.4	0.4	-1.3	-1.7
Operating Cashflow	**-4.0**	**-3.9**	**-0.2**	**0.1**
Capital expenditure	-1.9	-1.5	-7.4	-2.2
Free Cashflow	**-5.9**	**-5.3**	**-7.6**	**-2.1**
Net Acquisitions	0.0	0.0	0.0	0.0
Disposals	3.3	0.0	0.0	0.0
Increase (Repay) Debt	0.0	3.0	8.0	3.0
Equity Raised	1.1	2.5	0.0	0.0
Dividends paid	0.0	0.0	0.0	0.0
Other	1.0	0.0	0.0	0.0
Net Change in Cash	**-0.5**	**0.2**	**0.4**	**0.9**
Closing Cash Balance	**0.3**	**0.5**	**0.9**	**1.8**

Ratios	2008A	2009E	2010E	2011E
Profitability				
Revenue Growth (%)	nmf	-20.6	135.0	49.2
EBITDA Margin (%)	-23.0	-74.0	4.1	8.6
EBIT Margin (%)	-29.1	-81.2	-1.0	4.3
ROE (%)	-28%	-51%	-10%	-1%
Payout Ratio (%)	0%	0%	0%	0%
EV/EBITDA (x)	-2.5	-1.7	27.4	10.1
Balance Sheet				
Net Debt (Cash) ($m)	0.7	3.5	11.1	13.2
Net Debt/Equity (%)	8.5	48.4	167.0	201.2
Interest Cover (x)	-3.3	-25.1	-0.2	0.9
Book ($/share)	0.16	0.09	0.06	0.06
Price/Book (x)	0.2	0.3	0.5	0.5
EFPOWA (m)	52.2	84.4	109.4	109.4

DCF	2009E	2010E	2011E	2012E
Revenue	**5.4**	**12.7**	**18.9**	**23.2**
EBITDA	**-4.0**	**0.5**	**1.6**	**4.0**
Tax Paid	0.6	0.0	0.0	0.0
Investment in WC	-0.1	1.2	1.0	0.7
Operating Cashflow	**-3.3**	**-0.6**	**0.6**	**3.3**
Capital Investment	-1.5	-7.4	-2.2	-2.0
Free Cashflow	**-4.7**	**-8.0**	**-1.5**	**1.4**
Discounted FCF to 2018	10.5			
Terminal Value	76.6			
Debt	-3.5			
DCF Valuation	**83.6**			

Equity/Debt	41/59	WACC	10.3%
Cost of Equity	10.7%	Cost of Debt	9.5%
Adjusted Beta	0.80	Terminal Growth	3.0%

Equity risk premium weighting 150%

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