

Net benefit

Australia should be investing now for a food boom to follow the mining boom, with commercial fishing and aquaculture playing a valuable role.



Story: Georgie Oakeshott

Among the four million recreational fishermen in this country looking forward to their next opportunity to drop a line, there's one who knows a bit more about what's biting than your average angler.

Scientist and keen fisherman Patrick Hone is executive director of Australia's fisheries research body and is extremely well versed in all things pelagic, easily drawing on a wealth of research and statistics to support his enthusiasm for the future of Australia's so-called blue economy.

With almost 30 years' experience in fisheries and aquaculture science, including 15 as head of the Fisheries Research and Development Corporation (FRDC), Dr Hone has witnessed huge changes in fisheries science and says decisions today are being made on a vast array of scientific data to maximise efficiencies and minimise waste.

Since joining the FRDC – which has an annual spend of around \$30 million – Dr Hone has been involved in a wide range of projects from pippis to prawns.

His diverse work these days includes developing opportunities for Tasmania's Atlantic salmon farms and seeking new opportunities for Australia's pearl industry, which he describes as second to none in the world.

But while he feels he's surrounded by a sea of good news stories, the perception of Australia's fisheries and aquaculture industries is often quite the opposite, with only an estimated one in four Australians believing the industry is sustainable.

"There are a lot of unfounded comments about fisheries and the status of

stocks which have led to some perceptions of us as a threat," Dr Hone says.

"But Australia has some very conservative measures of what we call an allowable catch and our job is to make sure the fish are going to be here, being sustainably produced and an asset for Australians for a very long time."

He says Australia has one of the most rigorous compliance regimes in global fishing and our wild fisheries management is ranked among the top five management regimes in the world.

Speaking at a House of Representatives Agriculture, Resources, Fisheries and Forestry Committee hearing into the role of science for fishing and aquaculture, Dr Hone told MPs Australia has an enormous opportunity to build a future beyond the mining boom.

He says with Southeast Asia on our doorstep, we should be investing now for a food boom.

"A lot of people don't realise that fish is the most traded animal protein in the world. It is the largest food

protein industry. It is also the fastest growing food protein in the world and aquaculture is the fastest growing food component of that.

"The big question for Australia, when we sit on such a land mass and have the third largest exclusive economic zone and such enormous opportunities, is: how do we realise being part of that economy, boom or revolution?"

The economic zone he refers to is our internationally sanctioned fishing zone, which at 13.6 million square kilometers is the third largest in the world, extending way out into the Indian and Pacific Oceans, up to Papua New Guinea and down to Antarctica.

However due to a unique set of biophysical characteristics and a low level of nutrients in the water, this huge fishing zone is disappointingly low in fish numbers and our catch on a global scale is tiny, currently ranked 60th in the world. Some countries catch more of just one species than Australia's total catch across all species.

Global seafood consumption is increasing at around 2.5 per cent per year



“Look at the Mekong River,” says Dr Hone. “It produces 1.5 million metric tonnes of fish just from that one river while our total production is 250,000 tonnes.

“Our waters are not nutrient rich. We don’t have big river systems on a world scale, and so Australia has less capability to support fisheries.”

But what Australia’s fishing grounds lack in quantity, we more than make up for in quality, producing high value species such as abalone and rock lobster.

“We are one of the most biologically diverse marine countries in the world,” Dr Hone told the inquiry.

“We have a large number of species endemic to our island. We have the world’s largest abalone fishery and produce 50 per cent of the world’s abalone. We produce 30 per cent of the world’s spiny rock lobster. So while we don’t have massive fisheries producing hundreds of millions of tonnes like some countries, we do have highly valuable fisheries.”

The FRDC told the inquiry Australia’s wild catch and aquaculture industry has a combined gross production value of \$2.1 billion, of which aquaculture provides around 40 per cent. Our exports are currently worth an estimated \$1.2 billion.

Dr Hone believes all these figures could be bigger without impacting our enviable record on sustainability.

Global seafood consumption is increasing at around 2.5 per cent per year because, quite simply, people like eating fish – and it’s not surprising when you consider the health benefits.

Gram for gram, fish is one of the lowest fat, highest protein foods you can eat. Not only is seafood the best natural source of omega 3s, important for the brain and nervous system, it’s low in cholesterol, high in vitamins A, B, E and D, and high in minerals, iodine and calcium.

FRDC forecasts the quantity of seafood required by 2050 will be double the present tonnage, which presents an opportunity for significant increases in production.

“The prospectivity in the wild fisheries is still very large – 67 per cent of the planet is covered by oceans – it is a very large area. I know there is a lot of talk about it being fished down, but I can tell you in Australian waters there is significant opportunity in the wild

catch. In aquaculture we have the fifth largest coastline in the world and one of the most unpopulated coastlines in the world. There must be somewhere we can fit aquaculture.”

Aquaculture is now the world’s fastest growing industry in primary food production and by 2015 is expected to pass wild catch fisheries as the primary source of fish protein for human consumption.

To keep up with world demand, FRDC estimates aquaculture will need to grow a staggering 70 per cent to 90 million tonnes by 2030.

Most of this growth will centre on Asia, home to 80 per cent of world aquaculture production – in particular China, with 60 per cent of production

In Australia, aquaculture has been slow to develop and is still in its infancy but the signs are good especially in salmonids, edible oysters, prawns, tuna and abalone which comprise around 75 per cent of our total harvest value.

The biggest is salmon, with Tasmania currently producing around 35,000 tonnes of Atlantic salmon worth around \$400 million, with hopes to grow that figure to 55,000 tonnes in the next four to five years.

“There is no doubt that with Australia’s land and water assets and the right vision we could easily produce one million metric tonnes of fish in this country with minimal footprint, sustainably,” says Dr Hone.

“Aquaculture is currently sitting at around \$900 million gross value of production at the farm gate, dominated by Atlantic salmon, but there’s no reason why that industry can’t be worth one billion, two billion or even 10 billion dollars.

“Unfortunately it hasn’t developed and I think one of the big questions for this inquiry is why? Why is it 14 years since we’ve had another prawn farm approved in Queensland? Why are we having so much trouble developing southern blue fin tuna propagation? Why couldn’t we get another prawn farm developed in Western Australia?”

Questions about prawn farming have also been raised by the Australian Marine Alliance which represents a range of industry voices including commercial and recreational fishermen.

The alliance’s chief executive, Dean Logan told MPs prawn farming is one of the most benign forms of seafood



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harvesting yet is slowly disappearing from Australian shores.

“We do not have a single prawn farmer between Sydney Harbour and Eden. In our view that is akin to not having a single farmer on the land between Dubbo and Toowoomba. I question whether there would be a politician or an Australian who would accept that that would be a sufficient scientific outcome,” he told the inquiry.

Concerned about the federal government’s recent announcement to extend marine parks, Mr Logan called for more frank, free and fearless scientific advice.

“We need more independent science and the science needs to be front and centre of the policy debate. We don’t catch Nemo the Clown Fish, we don’t catch Barry the Boofhead Wrasse, we don’t catch dolphins and we don’t catch whales. We actually protect our environment very well, and there’s no reason why we couldn’t fish stocks more but at the same time be sustainable.”

Concerns about the sustainability of the industry have also been raised, with the World Wildlife Fund asking if Australia is prepared for the challenges ahead. Speaking at a recent public hearing, the environmental NGO’s



QUALITY OVER QUANTITY:

Australia benefits from high value species like rock lobster

lesser ability or interest in doing so," he says.

"If we are to feed growing human populations in the most environmentally friendly manner, the world cannot afford to not exploit fisheries sustainably at levels that approximate the maximum long-term surplus production. Well managed fishing has a far smaller environmental footprint than other forms of food production. More and more of the world's fisheries will need to be fully exploited but not over-fished."

To address some of the barriers to productivity, the FRDC is calling for the harmonisation of federal and state legislation and regulations with the establishment of a national fishery management standard and the creation of a single national fishery management agency.

The FRDC is also working on the first national fisheries stock status report, due for release later this year, to provide a simple, scientifically robust tool to compare the status and sustainability of fish stocks in Australia.

"We think fisheries and aquaculture have enormous opportunities, and science has an important role connecting the dots from MPs to industry and thinking about doing something for the future of Australia. Our industry has a lot to offer and we should be thinking beyond the mining boom and investing now," says Dr Hone.

"We used to talk about Australia and our geographic location as being far away from world markets in America and Europe – well now we really are the lucky country because we're sitting on top of a market which is the world's largest consumer of food. We could be the specialist food bowl of Asia." •

FOR MORE INFORMATION on the House of Representatives Agriculture, Resources, Fisheries and Forestry Committee inquiry into the role of science for fisheries and aquaculture, visit www.aph.gov.au/arff or email arff.reps@aph.gov.au or phone (02) 6277 4500.



national manager for marine, Professor Michael Harte questioned whether the current, well-established and highly regarded fisheries management model in Australia is set up appropriately for the future.

"I think there is an opportunity for this review to highlight some of those issues about whether we have the resources in place to see us maintain our pre-eminence in this field for the next 20 years," Professor Harte says. "I think we can take a lot of pride in where Australia has been for the last couple of decades, if not longer, but are we assured we are going to stay in that position for decades to come?"

Another leading fisheries scientist, Professor Bob Kearney is also worried about the future well-being of our fisheries and says we need to start being more strategic.

"Australia's fisheries are extremely well managed. They are, by world standards, very close to the best managed insofar as the management for the protection of species and the protection of biodiversity, and the sustainability of fisheries are concerned," Professor Kearney says.

"But unfortunately, they are not well managed at all when it comes to

"Well managed fishing has a far smaller environmental footprint than other forms of food production."

the economics of ensuring the viability of the industries themselves. In fact, the problem there is that most of our fisheries are overcapitalised and Australia does not have a strategic approach to the management of our total fishery. As such, there has been virtually no development of new fisheries in Australia for the last 15 or 20 years, and the strategic issues, the big-picture issues, of how we manage our fisheries and the level of the industry's involvement in that have been totally neglected."

Professor Kearney says Australia should be doing more with what it's got, describing it as environmentally and socially irresponsible not to optimally use our fish stocks.

"By continuing to import the bulk of its seafood from countries with inferior records for sustainable fisheries Australia is effectively exporting responsibility for the sustainable management of the world's fish stocks to countries with