AIMS Opening Statement to Senate Estimates

February 2022

Thank you for the opportunity to make an opening statement.

I would like to acknowledge the Traditional Owners of the AIMS sites and all the places across the North where AIMS works.

It is now almost five years since I became CEO of AIMS. When I began, back in 2017, the Great Barrier Reef had just experienced back-to-back bleaching events that caused severe coral mortality across the northern two-thirds of the reef, garnering world-wide attention. It was a heck of a way to start the job.

Since then, we have seen growing concern over the state of the world's reefs, and the plight of its oceans more generally. Reefs are one of the most temperature-sensitive ecosystems on the planet, and AIMS is at the forefront of monitoring their condition and developing ways to improve their resilience and to help them adapt to climate change.

Late last year, we released the Global Coral Reef Monitoring Network's *Status of Coral Reefs of the World* report. This sixth edition was the first since 2008, based on data from 1978 to 2019, and consisting of almost 2 million observations from more than 12,000 sites in 73 reef-bearing countries around the world. As lead author, AIMS reported that between 2009 and 2018, 14% of the coral from the world's coral reefs was lost, which is more than all the coral currently living on all of Australia's coral reefs. The findings reinforced that all the world's reefs are facing similar challenges, with climate change the single biggest threat.

In July of last year, AIMS released its annual long term monitoring report on the GBR to considerable media interest. The results reflected a year of unusually benign conditions on the reef, leading to some significant recovery of coral cover across the GBR. This good news was tempered by indications that the ecological makeup of the reef may already be changing, and that it may be moving to a new more unstable state. At the time, AIMS findings were used to inform briefings to UNESCO World Heritage representatives, who were evaluating the reef's status. The World Heritage Committee subsequently decided to re-assess the GBR's status early in 2022, a process to which AIMS will again contribute essential data.

In December of 2021, the GBR experienced the warmest sea surface temperatures of any December on record. This resulted in the build-up of heat stress rivalling the lead up to the 2016-17 bleaching events. Cooler conditions through January and early February of this year have improved the situation somewhat, but a hot March could still tip the balance towards widespread bleaching. We wait, and hope for cool weather.

Exceptionally, this situation has unfolded during a La Niña year, which would normally be expected to bring cooler than average conditions to the reef. These events are signalling that the GBR has now crossed a threshold. Severe and widespread coral bleaching can now occur in any given summer. If we are lucky and local weather conditions on the GBR are favourable, we will escape bleaching. Otherwise, we will not. The next strong El Nino year, which typically brings warmer than usual conditions to the Pacific, presents a significant risk to the GBR and reefs worldwide.

Henceforth, if we want to preserve healthy reefs for the future, we must reduce global emissions *and* we must help reefs adapt to warming conditions. Neither alone will suffice.

This means that the work of Australia's major world-leading reef restoration and adaptation program (RRAP) - supported by the Commonwealth government's $100 million investment through the reef trust partnership - is now more important and more urgent than ever. Led by AIMS, the program is now well underway, and has already yielded some significant breakthroughs. The recently announced $1bn funding package for the GBR includes almost $100m additional funding for RRAP.

Along with the Commonwealth's 2021 oceans leadership funding package, these are welcome and needed contributions at a key time for the world's oceans. And while we are making progress, there is no question that we have to keep going. We must work hard to reduce pollution loads and to remove plastics from our oceans. We need to improve the way we harvest resources from the oceans. And vitally, we have to reduce the emissions that are driving the rapid and irreversible warming of our oceans.

And just as dealing with the pandemic has shown us the value of science and fact-based action, so too must our ocean endeavours be guided by science. As one of the globe's powerhouses of marine science, Australia has a leading role to play in this effort.

Thank you.

Paul Hardisty

CEO, AIMS