

Travelling anywhere in the last twelve months is a lucky privilege. As an avid scuba diver, the opportunity to visit Lord Howe Island during the summer holidays was one too good to miss. Eight weeks before my departure Mr Fedele handed me a book. Part congratulatory Christmas gift, for being appointed Sustainability Portfolio Leader, and part homework, I wasn't sure whether to be grateful. The book, "*The Future We Choose*," by Christiana Figueres and Tom Rivett-Carnac, is a manifesto by two of the principal creators of the landmark Paris Agreement on climate change. As interesting as it sounded, I was reluctant to lose any time diving with Hawksbill Turtles or Galapagos Sharks. On the other hand, it was worth considering how my experiences could inform us at IGS in our journey to greater sustainability and to reconsider the aspirations for our school and the broader community.

Lord Howe Island

Lord Howe Island (LHI) is a UNESCO World Heritage Site located 586 kilometres - directly to east of Port Macquarie NSW. It is an "irregularly crescent-shaped volcanic remnant in the Tasman Sea¹," and is home to the world's most southerly coral reef along with a number of species of plants and animals unique to the island.

Cognisant of the unique natural beauty and the fragility of its ecosystems, the community that inhabits the remote New South Wales island are serious about sustainability. They have plans to install a minimum 1.2MW of solar and a 3.2MWh battery system. It is also the home to an impressive set of "live" sustainability initiatives and innovative thinking that allows the visitor to witness many process, practices, techniques and technologies that are common in theoretical discussions on sustainability, applied in the real world on Lord Howe Island. The permanent resident population have an ambitious goal to achieve carbon neutrality –and in the long term, the complete abandonment of all fossil fuels, including diesel for transport.

Strangely Similar

The International Grammar School has more in common with Lord Howe Island than you might expect. In terms of population, IGS is slightly bigger than Lord Howe. With a maximum

¹ Wikipedia – "Lord Howe Island" https://en.wikipedia.org/wiki/Lord_Howe_Island

population of 750, including permanent island residents, tourists and scientific, technical and community employees, and IGS with approximately 150 staff and 1180 students, it has almost twice the population. This infers a similar resource footprint in terms of consumption and resource utilisation – if transport (both to and from the island with medium sized ships and planes and for students and staff, both to and from school), and Lord Howe Islands beef importation (one of the most surprising things I learnt on the island is that beef importation produces the highest emissions of any practice on the island) - I will factor in as roughly equivalent. As an urban island in the middle of Ultimo, there is much we could learn from our Lord Howe friends who are girt by sea.

Waste Watchers

On LHI the use of worm farms offers a practical and real solution to school food waste. On the island, the largest accommodation provider, Pinetrees, processes all of its food waste (from a large commercial kitchen) through a series of worm farms, compost and biodegrading processes that in turn provide nutrients, fertiliser, potting mix and water for kitchen and cottage gardens across the island.

Energy off the grid

While IGS unfortunately does not have the space to construct a huge Tesla solar farm like they are doing on the island, there are smaller scale things there are many LHI practices which we can learn from. The island's desire to become independent of the mainland stems from it wanting to become a self-sufficient micro-community. This concept is one that IGS could benefit from. While IGS will never have the luxury of being completely self-sufficient as it will always be connected to Sydney's power grid, we can do smaller things to try and become as sustainable and self-sufficient as we can possibly be. Firstly we can source from a green energy provider and maximise the efficiency of existing energy infrastructure at our school.

Homework for all of us

The Future We Choose lists ten necessary actions that every individual can commit to, in order to defeat the climate crisis.

1. Let go of the old world
2. Face your grief but hold a vision for the future
3. Defend the truth
4. See yourself as a citizen – not as a consumer
5. Move beyond fossil fuels
6. Reforest the Earth
7. Invest in a clean economy
8. Use technology responsibly
9. Build gender equality
10. Engage in Politics

I reflected on these actions as I observed the sustainability journey of the Lord Howe community. The afore mentioned composting systems helps to achieve action six of the book, reforest the Earth, as well as their efforts in restoring the swamp forests that were destroyed by the constructions of settlements on the island. While we couldn't possibly recreate the estuarine wetlands that existed in Ultimo, planting native plants is something easy to do, and one which we are already doing at IGS. This provides a respite for the native birds and insects that are resilient enough to endure the pressures of inner city life. We can go further though, at LHI they have an impressive composting program which re-uses the vast majority of their waste. During the waste audit, which Sustainable Futures conducted last November, we collected 198 kilograms of waste of which nearly 20% (36.48 kilograms) was food and other compostables. Another type of waste which we could compost is uncontaminated paper. Paper made up 19% of daily waste (37.5 kilograms). IGS could save a lot of money by composting these items. According to the NSW Department of Primary Industries, Evans River K-12 school saved \$3000 a year from its composting program². A worm farm, one of the most well-known forms of composting creates a waste product which is highly fertile and assists in the growth of plant. On Lord Howe Islands Pinetrees

² *Eco-Schools: Waste*. Retrieved 21/1/21 from <https://www.environment.nsw.gov.au/funding-and-support/nsw-environmental-trust/grants-available/eco-schools/eco-schools-waste>

resort, the only growth enhancers they use is that created by their worm farms. If we start composting at IGS, we won't have to spend any money buying fertiliser to maintain the gardens around the school. And yes these financial savings are modest, the greater savings is that of carbon emissions reduction – the most important currency for our future.

Action Eight of *The Future We Choose* calls on us to use technology responsibly. This presents a lot of opportunity for our school especially as we are in the midst of a multi-year renovation. Firstly if we are not already, all the lighting at the school should be provided by light-emitting diodes (LEDs). LEDs consume as low as 6 watts of energy³, and also produce more light, very beneficial to a school environment. They also produce less heat, improving ventilation. Speaking of ventilation, the air conditioning at the school is confusing to say the least. In the *Global Learning Centre* the air conditioning is automatic. That means it often remains on at strange times and is highly inefficient. Each classroom should be manually controlled by its users, meaning that it meets student needs better and isn't on when it doesn't need to be. We should apply the motion sensing lighting that is present in the gym to the rest of the school. This means that when the space is not in use, the lights don't waste energy.

At sustainable futures we are taking steps to emend issues like this. We are planning a second waste audit which engages the primary school more to keep improving our schools waste use, as well as energy and water audits to address energy and water use.

Although I may have spent a little less time diving with turtles and sharks, perhaps my homework will have a lasting benefit for the threatened species that inhabit the enchanting paradise of Lord Howe Island. Perhaps we all need to do a little more sustainability homework to protect our shared future.

³ *LED Lighting*. Retrieved 21/1/21 from <https://www.sustainableschools.com.au/led-lighting/#:~:text=Currently%2C%20the%20most%20cost%2Defficient,giving%20energy%20and%20financial%20savings>.