



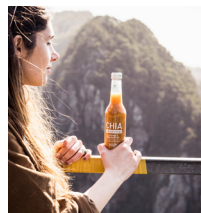
# Chia Sisters

# Impact Report 2020

**2013** CHIA launches as a healthy beverage to fuel friends and family in Nelson.

**2014:** Chia Sisters brings on board its first full-time employee.

**2014** CHIA wins Health Category at the New Zealand Food Awards.



**2016:** Chia Sisters launch Awaka, its sparkling coconut water range.



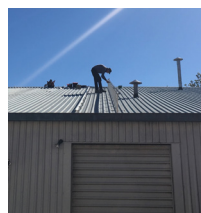
**2017** Chia Sisters becomes Nelson's first Living Wage Employer.

**2018** Solar panels are installed to make Chia Sisters New Zealand's first solar-powered juicery



**2018** Bottled by the Sun range is launched to celebrate Chia Sisters' shift to solar power

**2019** Chia Sisters is named on Forbes under-30 list for forging a sustainability path for the beverage industry.

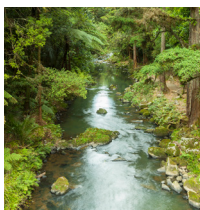


**2019** Bottled by the Sun wins Best Drink in New Zealand at the Outstanding Food Producer Awards.



**2019** Chloe and Florence are named New Zealand Women of Influence for game-changing the beverage industry.

**2019** Chia Sisters gains Zero Carbon and Climate Positive status.



**2019** Chia Sisters launches Zero Carbon Nelson, with the goal of 1000 Nelson businesses measuring and reducing their emissions within two years.

**2019** Florence and Chloe named New Zealand Kiwibank local heroes for their work as climate champions



**2019** Hemp Protein Superfood Smoothie launches.



**2019** Chia Sisters wins New Zealand Sustainable Business Network Transforming Food Award for creating a positive impact on people and the environment.

**2020** Chia Sisters to launch kegs as a packaging-free solution to beverages.

# Chia Sisters Impact Report 2020



Chia Sisters' core values are sustainability, nutrition and innovation. Making decisions that positively affect the well-being of people and the environment is in our DNA. It is well documented and widely accepted that it is people who are causing changes to the conditions of our planet and the natural environment. At a time when the imbalance of wealth in the world has reached alarming proportions, humans are on trend to use the equivalent of two planets' worth of resources by 2030.

Most companies are operating without including or considering the damage caused to environment and people in their balance sheets. This has led to rising inequality and environmental destruction.<sup>1</sup> Doing business sustainably is a Chia Sisters core value. We are only one small player, but we want to lead by example in this space. By putting sustainability at the core of our business we are successfully having a positive impact on the environment and the community in which we operate. Some of our proudest achievements are:

## **Achieving Zero Carbon and Climate Positive status.**

This means the overall activity of Chia Sisters reduces carbon in the atmosphere. Emissions are offset by planting native trees in the local Rameka forest, which is regenerating farmland.

## **Encouraging others to join us on the Zero Carbon journey.**

We lead workshops and have talked to over 1000 businesses to assist them in starting the Zero Carbon process. We have an open invitation to share our story and processes with any business interested in reducing their carbon emissions.

## **Becoming New Zealand's first solar-powered juicery.**

Our solar panels can harness up to 16,000 watts of energy per hour, and because this is twice the amount needed to fuel our factory, we sell excess energy back to the grid.

## **Producing high-nutrition products with no added sugar and no artificial ingredients.**

For this we have won the Health Category at the New Zealand Food Awards and 'Best Drink in New Zealand' at the Outstanding Food Producer Awards.

## **Becoming Nelson's first Living Wage accredited employer.**

The Living Wage is 20 per cent above the minimum wage and the amount needed to be an active citizen in society.

# Sustainability goals

We understand that Chia Sisters' sustainability goals cannot stand alone. They are interwoven and connected to other businesses, organisations and individuals locally, nationally and globally. Our impact is minimal unless we can impact others. For this reason, we have aligned our goals with the United Nations Sustainable Development Goals (SDGs), keeping them front of mind in all our business decisions. However, being in the food and beverage industry, and our location being Nelson, New Zealand, we choose to focus on these five core areas:



Imagery: United Nations

## The beverage industry – a snap shot

The beverage industry accounts for the disposal of more single-use plastic than any other product type (food or otherwise) in both the developing and developed world. Statistics in 2017 reported over one million plastic bottles a minute. <sup>2</sup>

The World Health Organisation (WHO) has named sugar-laden soft drinks as a key cause for rising diabetes, obesity and tooth decay, among other diseases. <sup>3</sup>

Two corporations have a global stronghold on the market, they own hundreds of beverage brands and restrict competitors from getting ahead through exclusivity contracts attached to almost every major food outlet worldwide. <sup>4</sup>

## Globally

- One million bottled beverages are consumed worldwide every minute.
- Between 5 and 13 million tonnes of plastic leaks into the world's oceans each year to be ingested by sea birds, fish and other organisms.
- By 2050, the ocean will contain more plastic by weight than fish.
- Coca-Cola produces more than 100 billion disposable plastic bottles every year; that's 3400 a second.
- The average amount of sugar in a soft drink



is six teaspoons; most 'energy' drinks have more sugar than the recommended daily intake.

- WHO has recognised the consumption of sugar-sweetened beverages as a contributing factor to the rising levels of childhood obesity in most countries.
- PepsiCo and Coca-Cola and their subsidiaries have 68.9 per cent of the market share, globally. This is tied up in exclusivity contracts, which blocks others from entering the market. <sup>5</sup>

## New Zealand

- New Zealand spends \$700 million on soft drinks, water and juices annually.
- Fifty-two per cent of drinks purchased contain added sugar.
- Each year 252,000 tonnes of plastic waste is disposed to New Zealand landfills.
- Coca Cola, PepsiCo and Asahi own exclusive contract with almost all major food outlets, including in universities, hospitals and schools.
- Soft drinks are a key cause of tooth decay and obesity in New Zealand.
- More than 96,000 New Zealand children had their teeth extracted in 2018, and over 7500 required dental treatment under general anaesthetic.
- Removing children's teeth costs New Zealand \$30 million per year.
- New Zealand has the third highest rate of obesity in the world, topped only by USA and Mexico. <sup>6</sup>



## SDG 13 Climate Action

New Zealand Prime Minister Jacinda Ardern has named climate change the most challenging issue of our time.

The Intergovernmental Panel on Climate Change Report released in October 2018, reinforced what we know already: 'Unprecedented changes are needed to stave off dire impacts if the world warms 1.5°C beyond the pre-industrial period.' <sup>7</sup>

Earth's atmosphere has more carbon in it than at any point in time over three million years. It has increased from up to 290 parts of carbon per million to 407 parts of carbon per million.

The amount of carbon in the atmosphere is directly correlated with the average temperature, which is why we are living through a climate change crisis. <sup>8</sup>

In January 2019, Nelson Mayor Rachel Reese declared a Climate Emergency.

In July 2019 Chia Sisters became an accredited Ekos Zero Carbon and Climate Positive company. This means the overall activity of Chia Sisters reduces carbon in the atmosphere.

This has been a four-step process to achieve accreditation:

1. We measured our emissions, with the help of Ekos, a local non-profit enterprise that measures carbon emissions and develops innovative approaches to financing a sustainable future.
2. After we understood where our emissions were coming from, we reduced our carbon emissions to 22.55 tonne of CO<sub>2</sub>, equivalent to just 0.00003 per cent of overall CO<sub>2</sub> emissions for the food processing industry in New Zealand. <sup>9</sup>

We did this through:

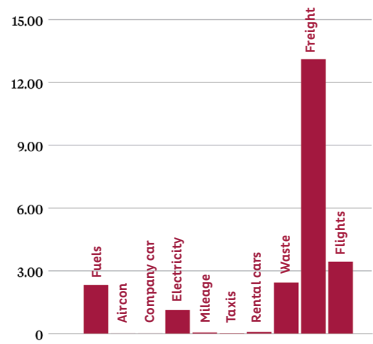
- minimising waste
  - harnessing approximately 1200 kilowatts of energy monthly through the installation of 32 solar panels and insulation.
  - using electric vehicles
  - transferring air freight to sea freight, saving over 6 tonnes of carbon emissions
3. We offset the remaining 22.55 tonnes of CO<sub>2</sub> by contributing to native and sustainable planting in the Rameka Forest, a Certified Carbon Emissions Trading Scheme Carbon Sink. We also pay for the ongoing upkeep and maintenance of this section of the forest.
4. We incorporate this into our financial balance sheet: for every dollar we spend, going forward, we understand its true environmental cost including the impact on our carbon footprint. We believe that all businesses should pay for the negative impacts they are having on the environment.

We have encouraged others, particularly the businesses that are the biggest contributors of carbon emissions, to join us on the path towards Zero Carbon. We have engaged in workshops with Bank of New Zealand, New Zealand Trade & Enterprise and the Nelson Chamber of Commerce, and currently, we have encouraged over 100 businesses to start the Zero Carbon journey.

We are joining together to work towards two goals. The short-term goal is to have 1000 businesses in Te Taihū region measuring and reducing carbon emissions by 2021. The long-term goal is a Zero Carbon Te Taihū by 2025. You can learn more about this project at: [www.zerocarbonsnelson.com](http://www.zerocarbonsnelson.com)

Activity	tCO <sub>2</sub> e	
Fuels	2.32	
Aircon	0.00	
Company car	0.00	
Electricity	1.13	
Mileage	0.05	
Taxis	0.02	
Rental cars	0.07	
Waste	2.44	
	tCO <sub>2</sub> e No RF	tCO <sub>2</sub> e with RF
Freight	11.61	13.11
Flights	1.81	3.43

Grand total	tCO <sub>2</sub> e No RF	tCO <sub>2</sub> e with RF
	19.44	22.55



Chia Sisters' footprint in tCO<sub>2</sub>e as calculated by Ekos Ltd, for the financial year beginning 1 April 2018.



## SDG 7 Affordable and Clean Energy

In 2018, we lined our factory roof with 32 solar panels to become New Zealand's first solar-powered juicery. The solar panels can harness up to 16,000 watts of energy from the sun each hour. Our factory uses 8000 watts when it is at full capacity, therefore we send what we do not use back to the grid.



Solar panels being installed on the juicery, November 2018.

So far, this is 13,500,000 watts of energy generated by the sun supplied back to the grid for others to use.

While most energy in New Zealand is sourced from hydro, coal plants are still being used to make electricity in New Zealand. Air pollution from coal-fired power plants includes sulfur dioxide, nitrogen oxides, carbon and heavy metals. This can lead to smog, acid rain, toxins in the environment, climate change and numerous respiratory, cardiovascular and cerebrovascular effects.

Hydro is a renewable source of energy but still has an impact on the environment. For example, dams swallow up vast swathes of natural and human habitat.

The outcome of switching to solar is significant. It has been named, alongside wind power, as the best future source of energy to solve climate change. The sun provides clean, virtually free energy, at a price that never changes. Climate science expert Paul Hawken has noted that 'any scenario for reversing global warming

includes a massive ramp-up of solar power by mid-century. It simply makes sense.'<sup>9 10</sup>

University of Oxford researchers have calculated that solar could meet 20 per cent of global energy needs by 2027.

We are proud to be leading the way in Nelson to show that this is a viable option.



## SDG 12 Responsible Consumption and Production

When we launched in 2013, we made the decision to bottle our juices in glass. Glass is infinitely recyclable. This has saved over 4 million plastic bottles going to landfill and 200,000 litres of oil, a finite resource, from being permanently extracted from the planet.

By 2022, our goal is to have 50 per cent of all our sales come from kegs, on tap, into refillable vessels. This is a work in progress. Our first kegs of fresh-pressed juice and sparkling coconut water were sold in July 2019. We are committed to helping our customers in cafes, hospitals and grocery stores make this transition by bearing the costs of installing infrastructure such as fridges and taps, in order to make waste-free products an option. The outcome of this will be a way of moving our business to a circular beverage economy.





Chloe and Florence Van Dyke, on launch of the Bottled by the Juice range to celebrate the company's shift to solar power. The juice went on to win Best Drink in New Zealand for 2019. (Photo: Stuff)



## SDG 8 Decent Work and Economic Growth

Our team is our most important asset. One way we value them is by paying each employee above Living Wage. This is the amount needed to provide workers and their families with basic necessities and to live and participate as active citizens in society. We decided to become accredited with Living Wage Aotearoa, an organisation that tackles poverty and inequality. In making this shift, we have paid tens of thousands of dollars in excess to our employees. We believe they are more than worth it.

This means our team has more money to spend on creating a quality lifestyle. We know that the majority of this excess is spent in Nelson, helping our community to thrive. It also means they have less financial stress and feel more committed as valued members of the Chia Sisters company.

## Bottled by the Sun

To celebrate our shift to solar, we created a fresh-pressed juice range called 'Bottled by the Sun'. Bottled by the Sun won Best Drink in New Zealand for 2019 and later that year Chia Sisters won the Sustainable Business Network Transforming Food Award for transforming the food system to create a positive impact on people and the environment.



## SDG 3 Good Health and Well-being

We are proud to produce New Zealand's most nutritious beverages. We believe health is about more than what is not in a product. All Chia Sisters beverages are rich in nutrition.



# Chia Sisters range

The Chia Sisters range consists of:

*CHIA* beverages, rich in protein, calcium, natural electrolytes, selenium, antioxidants, magnesium, omega 3, 6 and 9, and fibre.

*Sparkling* coconut water, rich in natural electrolytes, magnesium and potassium.

*Bottled by the Sun* fresh-pressed fruit, rich in fibre, vitamin C and antioxidants.

*Hemp* smoothies, rich in protein, calcium, manganese, omega 3, 6 and 9.

Chia seeds, rich in protein, calcium, natural electrolytes, selenium, magnesium, omega 3, 6 and 9, and fibre.

Hemp seeds, rich in protein, calcium, manganese omega 3, 6 and 9.

Chia Sisters beverages have no added sugar and no artificial colours, flavours or preservatives. All are made entirely from plants. In a sector where an 'energy' drink has, on average, six teaspoons of sugar,<sup>11</sup> we are proud to be one of the exceptions in contributing to a healthier planet.



CHIA range



Sparkling range



Bottled by the Sun range



Hemp protein smoothie range





## Concluding Remarks

People are having a negative impact on the natural environment, and most of this is caused by the actions of businesses. We firmly believe it is possible for businesses to act ethically while still being profitable.

Although we are trying hard to make a difference, we also acknowledge that Chia Sisters has work to do. Given our commitments to sustainability we feel it is important to hold ourselves accountable. Transparency plays an important role in this. We recognise that it is near impossible to run a perfect business. We need to be continuously analysing our values, systems and processes in all areas, to set standards for future improvement.

Our goal is to have a waste-free company by 2022. This is an area that will require shifts in our outlook and policies over the coming months. We also know that this report is not complete, but we believe we are doing the best job we can with the resources at hand.

Please be in touch if you would like to piggy-back off our ideas, give feedback or are interested in our commitments to sustainability: [hello@chia.co.nz](mailto:hello@chia.co.nz).

Most importantly, we acknowledge that Chia Sisters is one small player in an interconnected world. Our true impact will come by sharing our stories and lessons with others, inspiring them to follow suit, and by us being inspired by others working on their impact on the planet.

To make the planet a better place, we need to work collectively.

**Florence Van Dyke**

*CEO and Co-owner of Chia Sisters*

## Endnotes

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- 2 *The Guardian*, 'A million bottles a minute: world's plastic binge as dangerous as climate change', viewed 10 November 2019, <https://www.theguardian.com/environment/2017/jun/28/a-million-a-minute-worlds-plastic-bottle-binge-as-dangerous-as-climate-change>
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- 5 *The Guardian* 2017, 'A million bottles a minute', viewed 10 November 2019; see also: World Economic Forum, Ellen MacArthur Foundation and McKinsey & Company, 'The New Plastics Economy — Rethinking the future of plastics' (2016, <http://www.ellenmacarthurfoundation.org/publications>); see also: Hashem KM, He FJ, MacGregor GA, 'Cross-sectional surveys of the amount of sugar, energy and caffeine in sugar-sweetened drinks marketed and consumed as energy drinks in the UK between 2015 and 2017: monitoring reformulation progress BMJ' *Open* 2018;7:e018136. doi: 10.1136/bmjopen-2017-018136; [https://www.who.int/elena/bbc/ssbs\\_childhood\\_obesity/en/](https://www.who.int/elena/bbc/ssbs_childhood_obesity/en/); see also: 'Market Share of carbonated beverages worldwide as of 2017, by company', Statista Research Department, viewed 10 October 2019, <https://www.statista.com/statistics/387318/market-share-of-leading-carbonated-beverage-companies-worldwide>
- 6 New Zealand Beverage Council 2019, 'About the Industry', NZ Beverage Council <https://www.nzbeveragecouncil.org.nz/consumer-information/about-the-industry/>; see also: 'A look inside NZ Fridges' – Beverage Consumption in New Zealand, viewed 22 November 2019 <https://www.nzbeveragecouncil.org.nz/consumer-information/about-the-industry/>; see also: Recycle 2019, 'Waste Starts With Us', viewed 1 November 2019, <https://www.recycle.co.nz/problemsize.php>; see also: Emma Russell, 'New Zealanders biggest consumers in favour of sugary drinks tax, poll reveals', *New Zealand Herald*, 10 November 2018, [www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=12157492](http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=12157492); see also: OECD, 'Obesity Updates 2017', OECD, viewed 20 October 2019, <https://www.oecd.org/els/health-systems/Obesity-Update-2017.pdf>
- 7 Prime Minister Jacinda Ardern, 'New Zealand Parliament, Climate Change Response (Zero Carbon) Amendment Bill — Third Reading, New Zealand Parliament', 7 November 2019, [https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansDeb\\_20191107\\_20191107\\_16](https://www.parliament.nz/en/pb/hansard-debates/rhr/combined/HansDeb_20191107_20191107_16); see also: The Intergovernmental Panel on Climate Change, 'Special Report, Warming of 1.5 degrees, United Nations', viewed 20 September 2019, <https://www.ipcc.ch/sr15/>
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- 11 Hashem KM, He FJ, MacGregor GA, *Open* 2018;7:e018136. doi: 10.1136/bmjopen-2017-018136





Rameka Forest, a Certified Carbon Emissions Trading Scheme Carbon Sink. Image: Ekos Ltd.