## Future Proofing New Zealand

Suzy Amis Cameron & James Cameron

## New Zealand's Greenhouse Gas Emissions



Source: New Zealand's Greenhouse Gas Inventory 1990-2017, published April 2019

Note: Percentages in the graph may not add up to 100 due to rounding.

Fugitive emissions are from the leakage, burning and controlled release of gases in oil and gas operations as well as escaping gases from coal mining and geothermal operations. Agricultural methane is mainly from livestock digestive systems and nitrous oxide is mainly from manure on soil.

## **New Zealand's Current Emissions Targets and Progress**

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT

- 2020 target under UNFCCC: 5% reduction on 1990 emissions
- 2030 NDC under Paris Agreement: 30% below 2005 (11% below 1990)
- 2050 target currently gazetted: 50% below 1990 emissions



## The Climate Cost of Beef

Carbon emissions produced by different foods in 2010

(In tonnes of CO2 per million kilocalories consumed)



Source: World Resources Institute







# How moving from meat and dairy to more plants affects sustainability and emission reduction goals



## **Cow's Milk vs. Plant-Based Milk**

#### **RESULTS:** THE IMPACTS OF DRINKING COW'S MILK



#### OR CONSIDER THESE OTHER PLANT-BASED COW'S MILK ALTERNATIVES

Food Type	Land Use	Water Use	Miles Driven
Cashew Cream	0.09 square miles	9 gallons	0.19 miles

## **Beef vs. Plant-Based Alternatives**

#### **RESULTS: THE IMPACTS OF EATING BEEF**



#### **OR CONSIDER THESE OTHER PLANT-BASED BEEF ALTERNATIVES**

Food Type	Land Use	Water Use	Miles Driven
Tofu	0.10 square miles	14 gallons	0.22 miles
Beans	0.15 square miles	21 gallons	0.11 miles
Chickpeas	0.33 square miles	35 gallons	0.21 miles
Brown Lentils	0.35 square miles	35 gallons	0.21 miles
Quinoa	0.37 square miles	31 gallons	0.25 miles



# **Milk Dip**

## Americans keep drinking less milk from cows









Source: Nielsen Consumer Data

Consumer Interest in Veganism Mapped by Google







#### **OMD Seeds**

## Traceability, Trust & Scale

OMD's Unique Advantage: Vertical Integration



5

6

#### Plant Protein Innovation Park

### **Verdient Foods**

**Lighthouse Farms** 

Ingredion

#### **OMD & T Base 4 Global Holdings**



**OMD Packaging & Distribution** 

## Change

## Change is Inevitable

.

# Will New Zealand Lead or Follow?

# Person Person Meal a Day Year

## 1 Person 1) Meal a Day 1) Year

Saves **(5)740,000** 

litres of water

**(A)** 5,000 kilometres of driving

