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What leadership characteristics are required for the New Zealand primary industry to achieve the transformational change required?

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I would like to thank the Kellogg Programme Investing Partners for their continued support.

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Executive Summary

The New Zealand primary industry is operating in challenging times. There is much pressure for the primary industry to instigate change, with a level of tension not seen since the 1984 deregulation and removal of subsidies. The reality facing our industry is that time has been allowed to march on without enough progress having been made to address the global and national challenges upon us. New Zealand farmers and growers are no longer able to manage their business within the four pegs of their boundary in isolation. Instead decisions made inside the farm gate increasingly have consequences on others in our communities, district/region, and beyond.

This research considered what leadership characteristics are required to support the primary industry in bringing about change. The project explores case studies of transformational change that have been successful and/or which could have been carried out better and/or achieved more. The report also reflects on characteristics and examples of good and not-so-good leadership gained through semi-structured interviews.

The aim and purpose of the research was to identify what leadership is and how it can facilitate or hinder transformational change. The research aimed to critically assess, compare and contrast characteristics of leadership which are displayed while undertaking transformational change. This type of reflection is important because change commonly has aspects that are unknown or ambiguous. Leadership, by virtue of its definition, is leading people to navigate ambiguity. This report provides insights and frameworks for tools to support leaders.

The methodology comprised a literature review, three case studies and semi-structured interviews analysed using a deductive approach.

The research demonstrates the need to address challenging issues early in order to gain agreement as to the way forward, with collective buy in and a shared understanding around the urgency to change. For this to occur, the research demonstrates that people want to understand 'the why' and be 'taken on the journey' when being led.

Given the extent of the challenges facing farmers and growers to make changes on farm, New Zealand farmers and growers deserve the best leadership. This project is important when considering the issues facing leadership within the industry, and seeks to challenge the status quo with a view to encouraging change and how we are leading our industry (across primary sectors) in these extraordinary times.

Recommendations;

1. The chair of the Board's for Beef + Lamb New Zealand and Dairy NZ to conduct a review of their Director's appetite to support leading change on climate emissions reductions jointly with Ministry for Primary Industries.
2. All of the primary industry levy bodies to implement a change framework, be transparent about what it is, and have accountability to achieve milestones, within a stepped process.

3. The Ministry for Primary Industries, in collaboration with levy bodies to survey farmers about what farmers and growers are seeking in terms of leadership, providing a foundation for opinions to be heard on these matters.

Acknowledgements and Foreword

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Contents

Executive Summary.....	ii
Acknowledgements and Foreword	iii
Section 1: Introduction	1
Section 2: Aims and Objectives.....	4
Section 3: Methodology.....	4
Section 3.1: Limitations	6
Section 4: Literature review	6
4.1 The industry change:.....	6
4.2 literature review – characteristics of leadership	7
4.3 Literature review – Leadership frameworks	9
Section 5: Thematic Analysis	12
5.1 Interviews	12
Section 6: Case studies on transformational leadership	15
Section 6.1: Case study 1 – deregulation of New Zealand Agriculture from subsidies in 1984	15
Section 6.2: Case study 2 – The Land & Water Forum	20
Section 6.3: Case study 3 – Environment and Sustainability.....	25
Section 7: Findings and discussion	32
Conclusion:	33
Recommendations	34
References.....	35
Appendix.....	38

Section 1: Introduction

Since 1960 global population has grown by approximately 6.60 million people per month (World Bank, 2023). New Zealand food and fibre is forecast to produce \$55b of revenue by June 2023. 81.4% of New Zealand's export merchandise comes from the food and fibre sector (Ministry of Primary Industries, December 2022).

The global agribusiness system has maintained production to keep up with the demand for food, but it is now under increasing pressure.

This project explores whether we, as leaders, are delivering our best work in navigating an increasingly challenging landscape. New Zealand farmers and growers deserve (and need) great leadership through change. By exploring characteristics of good leadership in case studies and interviews while comparing and contrasting this with the outcomes, we can all consider how to best support and serve our primary industries.

New Zealand agriculture operates as an interlinked and interconnected system. Dairy farmers rely on beef farmers to purchase calves that are not retained as replacement heifers. Sheep and beef farmers rely on heifer and winter cow grazing to supplement income; with the sale of standing grass or crops also a significant portion of their business model. Cropping farmers rely on dairy farmers to purchase cereal or feed crops. Horticulture relies on lambs for grazing between the rows of grapes and apiarists support pollination across most aspects of horticulture. Vegetable growers use stock feed production crops as part of the crop rotation. This complex interacting system ensures that every farming or growing business can operate as efficiently and effectively as it can through collaboration.

However, the New Zealand agriculture sector is presently being challenged to make significant changes. These changes will affect the different farming systems in different ways and on multiple fronts contemporaneously.

The challenges for change in the agricultural industry are evident in the Beef + Lamb New Zealand and the Meat Industry Association summary manifesto (Meat Industry Association, 2023). *"The manifesto spans five key areas - climate and environmental policy, workforce and industrial relations, trade, biosecurity, and innovation, research and development"*. The manifesto set out that the primary sector is prepared to do the appropriate work for their environmental responsibilities. The manifesto goes on to also describe how the speed being sought to achieve the desired outcomes is leading to poorly drafted legislation and policies. The manifesto speaks to there being better ways to achieve good outcomes within the industry.

While the manifesto outlines concerns and pressure in the five key areas identified above, these same challenges are also evident across other primary sectors. Those sectors are also grappling with the changes described in the manifesto to varying degrees. For example; amending the current time-bound methane emissions targets, new requirements around indigenous biodiversity, the definition of significant natural areas, winter grazing rules, and reviewing the low slope map for regional variances.

There is no doubt that there has been a suite of policy reform focused on environmental outcomes, particularly in relation to freshwater (the Essential Freshwater reforms in 2020, for example) and emissions and climate change.

It is therefore unsurprising that New Zealand farmers and growers are feeling overwhelmed by the breadth, quantum, and speed at which policy and legislative changes are being proposed. Many comments within the industry describe change being felt as a tidal wave of policy coming at farmers all at once. 'The cumulative impact' is a phrase often used to summarise the feeling within the farming and growing communities.

Managing change within a farming and growing business is not new. Landowners have always needed to possess broad in-depth knowledge in many areas of their business ranging from agronomy and animal health to finances and regulatory requirements. However, change in primary industry invariably adds operational and capital costs and affects the ease with which the business operates. The appetite to undertake the change needs to be outweighed by the benefits. Where there is a lot of change, the business model for many farms is impacted significantly.

Consumers of New Zealand products off-shore will also consider what is important to them. Multiple factors contribute to the purchasing decision, each carrying a different weight. One critical factor is the food's provenance or origin. These consumers and their governments can influence the ease with whom they trade. A significant piece of work is the Carbon Border Adjustment Mechanisms (CBAM) between the European Union and the United States Government. While yet to pass through the European Union Parliament and potentially in conflict with the World Trade Organisation, the premise is that CBAM will prevent domestic (EU) industries from being undercut by countries with looser environmental standards (World Economic Forum, 2023). CBAM, at this stage, does not directly consider the food and fibre trade. The New Zealand agricultural industry will need to pay attention to the potential future reach of CBAM.

Leadership of industry in these times is therefore critical. Good leadership is integral for achieving change because it is about ensuring a team, organisation or industry is ready for what is over the horizon and able to deal with the impacts of change.

Transformational change and leadership characteristics

'Transformational change is a type of change that reshapes an organisation. Transformational change occurs when responding to or anticipating significant changes in an organisation's environment or technology' (Worley & Cumings, 2009).

Transformational change is when a significant change is required. It is usually driven by an adjustment in the environment in which the organisation or industry operates. This level of change brings significant challenges that take time to navigate (Transformational Change, 2023). That is not to say that transformational change cannot be achieved. John Kotter outlines the process for successful transformational change. Ultimately, the success of any transformational change comes down to the leadership and how it is led. A set of key characteristics and behaviours must be aligned to make the transformational change successful.

This project applies two different frameworks. First, McKinsey's three horizons model with an adjustment and second, John Kotter's '8 steps for transformational change'. This report reviews the applicability of the two models and considers the necessary characteristics of leadership which assist leaders to navigate future change with a framework and greater success.

Case Studies – Transformational Change

This research undertaken for this project led to thirteen semi-structured interviews with leaders of New Zealand agriculture and three case studies of past, present and future transformational change.

Past; Case study 1 - deregulation of New Zealand agriculture subsidies. New Zealand's agriculture industry went through an upheaval in 1984 following a snap election called by then National Party Prime Minister Sir Robert Muldoon. That election was lost to the Labour Party. The transformational change in the agriculture industry started when the new Labour Party Minister of Finance, Roger Douglas, decided to remove subsidies for farmers. This was implemented over an approximately 10-month period, i.e. less than one calendar year or farming season.

Present; Case study 2 - freshwater management. Before 2008, freshwater management was contentious and litigious and needed more nationally consistent processes, leadership, oversight and governance. The Land and Water Forum was initiated prior to the 2008 New Zealand election and it held bipartisan agreement to progress whichever party won. This case study conveys a style of collaborative leadership that was new at the time. The research will explain the advantages and disadvantages of the Land and Water Forum process.

Present and future; Case study 3 - environmental sustainability for agriculture. The current and future focus areas for New Zealand on this topic were identified as Fresh Water Management, Indigenous Biodiversity, Animal Welfare and Climate Change (Greenhouse Gas Emissions - GHGs). Like all challenges, these areas are addressed with differing degrees of urgency. The broadest response to the changes proposed is with regard to meeting the challenges of climate change. This is the most contentious of the issues identified as a current and future focus area. This case study found a natural focus on leadership relating to GHGs within agriculture.

Section 2: Aims and Objectives

This project aims to challenge primary industry leaders to adopt a deliberate strategy to achieve better outcomes for all of New Zealand, not just our primary sector. Like all farmers and growers globally, the New Zealand primary sector deserves good leadership. Most leadership in the New Zealand primary sector isn't achieving the outcomes expected by the sector.

The report sets out to explore, understand, learn and articulate the characteristics of leadership which support achieving change successfully. It also examines the characteristics and examples of leadership which may not serve the community well, or as effectively, when navigating transformational change.

The objective is to identify the leadership pathways for industry and the types of characteristics required for our leaders, with a view to informing how present-day and future leaders can lead in the best possible way. The report then reflects on how these leadership characteristics can apply within the context of the agricultural industry navigating change and some of the challenges outlined in the Meat Industry Association Manifesto.

Section 3: Methodology

The focus for this report is on leadership for transformational change, and investigates significant events where change has occurred in NZ historically, more recently, and today. It seeks to critically examine the aspects of leadership which influenced those changes. Having articulated key themes, the report compares, contrasts and evaluates the information available to draw conclusions and make recommendations for future use.

The first phase of the literature review was to determine how much change is being experienced in the New Zealand primary industry and the pace of change.

The methodology then involved three key analytical tools.

1. Literature review – inductive approach (Braun & Clarke, Using thematic analysis in psychology, 2006);

The literature review consisted of three components:

- understanding how much change is being experienced in the primary sector;
- reviewing what previous work had been undertaken on leadership frameworks; and
- exploring transformational change.

The literature was primarily sourced from published papers and books and industry annual general reports. The purpose of reviewing annual general reports was to understand what information was being promoted, shared or disseminated within and

by the industry itself. This gave rise to significant limitations as only some industry bodies make that information available outside of their member base or levy payers.

Keywords used in sourcing and reviewing literature were: leadership, change, transformational change, challenge, interpersonal, intrapersonal, professionalism, followership, ignore, disregard.

There were two key steps undertaken as part of the literature review:

- First, it was necessary to investigate (and review) what work had previously considered leadership frameworks when navigating significant or transformational changes; this was not limited to agriculture.
- Second, the literature review considered where there has been transformational change occurring (previously or now); conducting a deductive thematic review aligned with the abovementioned keywords.

2. Semi-structured interviews – deductive approach (Braun & Clarke, Thematic Analysis, 2012)

The author conducted semi-structured interviews with thirteen agriculture professionals, leaders, farmers and growers regarding leadership in relation to change. All the interviews were conducted with the research question as a pre-cursor to introducing the overall theme. Questions were framed to not lead the interviewees. Questions were instead designed to better understand different perspectives about examples of 'good leadership' and 'not so good leadership'. All of the interviews were designed to consider 'what better might look like'. The interview format also explored if there needed to be more 'followership' from leadership directives for New Zealand agriculture. The latter part of the interviews considered if New Zealand farmers and growers are close enough to their customers or consumers to understand why sustainability change is important. The technique used to analyse the data collected was thematic analysis (Braun & Clarke, Thematic Analysis, 2012).

3. Case studies.

Three case studies were identified. The case studies were selected from information provided and suggestions made during the semi-structured interviews. The basis for these case studies were examples of transformational change which are pivotal events in the history of New Zealand agriculture. These included:

- The removal of subsidies in the 1980s led by Sir Roger Douglas and supported by industry leaders.
- Fresh Water Policy reforms commenced by the Land and Water Forum in 2008 – to the present day.
- Recent challenges in the primary industry regarding environmental and sustainability objectives. While the focus area was wide within the interviews, in relation to leadership in indigenous bio-diversity, animal welfare, freshwater management, climate change and global emissions. These have all divided or impacted significantly New Zealand and the rural community. The most contentious of these, climate change emissions, became the natural focus of this case study.

The case studies were analysed using a timeline of important events or key milestones. The purpose of this was to align the case studies to the literature review findings. An assessment was considered by the author in relation to leadership characteristics displayed either leading up to, or in reaction to these key events. The assessment was a mixture of literature review and input from the structured interviews. Several of the interviewees played instrumental roles in the research or were close to a case study in the depth and range of information provided.

[Section 3.1: Limitations](#)

This report has been completed with time and capacity limitations when completing the research and the interviews.

Readers should be aware that climate change science research is changing very quickly, with new information and decisions emerging regularly. Further, for the purposes of this paper, the author has not evaluated the fairness of abolishing the Supplementary Minimum Pricing, while electing to leave other subsidies in place. Instead, this case study focuses solely on the leadership and decisions made at the time and in the period leading up to the point of deregulation.

Several characteristics of good leadership are not within this project's scope. This is because they are considered to be fundamental to good leadership. For example, diversity and the importance of Māori agribusiness, and the role of good governance – these are all considered to be essential requirements which will be adopted.

[Section 4: Literature review](#)

Undertaking change at an organisation or industry level is transformational change by definition (Worley & Cumings, 2009). Implementation of transformational change requires modification of the way people think; both in terms of their mindset and the way that tasks are undertaken. When completing these large scale changes, leadership is required to facilitate commencing, implementing and then maintaining the new norm. Leadership is required to support the human behaviour fundamentals, for those who carry out the change, and then also to embed the change as a new norm. This project considers what leadership characteristics are required to achieve transformational change.

[4.1 The industry change:](#)

The purpose of this component of the literature review was to determine if there is an expectation on the primary industry to make significant changes. The review commenced with a thematic analysis relating to change.

Policy change at a government level was clear early in the research process from review of the Meat Industry Association Manifesto affecting pastoral farming (Meat Industry Association, 2023). In this manifesto there was a call for government to slow down. A clear sentiment expressed within the manifesto was that industry is being asked to change 'too much too quickly' and that this is adversely impacting primary industry. The manifesto sought to respond to the significant number of legislative and

policy changes the New Zealand Government proposed, particularly concerning environmental and sustainable practices. A significant focus of the manifesto was on the sheep, beef, and dairy sectors regarding methane emissions and the He Waka Eke Noa Partnership (He Waka Eke Noa, 2023). However, the literature review illustrates that there are other agriculture industries, such as horticulture and arable cropping, which are also challenged by the introduction or proposed introduction of policies relating to freshwater management, indigenous biodiversity and nitrous oxide.

The New Zealand primary industry has advanced significant intensification and land use change within dairy farming in the last 20 years. Expectations of the primary sector to make land use change in response to environmental and social challenges is an outcome of this intensification (Renwick, et al., 2022). The requirement for land use change in response to greenhouse gas emissions was made clear in the 2017 Organisation for Economic Cooperation and Development (OECD) report. This report notes that the primary sector makes up 48% of New Zealand's Greenhouse Gas Emissions profile - *“Currently the primary sector is excluded from the Emissions Trading Scheme (ETS), however continuing to exclude the primary sector from the New Zealand ETS will give a disproportion burden on other sectors of the economy”* (OECD, 2017)

When analysing literature for key themes, it became apparent that there were several public campaigns centred around the challenges facing the New Zealand primary sector, including Kiwis Backing Farmers and Groundswell NZ. The literature review did not find reporting which supported the current quantum and proposed rate of changes within the primary industry as acceptable to those being required to implement the change. While there may be farmers and growers in New Zealand who do accept the expectation of change, this was not noted within the literature review.

[4.2 literature review – characteristics of leadership](#)

The second phase of the literature review was to explore and understand leadership characteristics in general terms (in isolation to the primary industry challenges) and further, how leadership influences change or transformational change.

Successful leadership requires leaders to traverse leadership characteristics on a tightrope of either being too timid or too bold. An essential aspect of leadership is to have the people with you on the journey, so as to ensure that there is alignment in views and approach. Equally, effective leadership is challenged by the fact that decisions need to be made when the leader does not have all of the necessary information or certainty around what the future holds. *“Leaders have to have people who wish to walk alongside them. But leaders deal with constraints – scarcity [sic. of information]. They [sic. Leaders] have to make judgements using intuitions and hypotheses, operating somewhere in the middle of relative certainties and the ambiguities of the future. By the time there is more data available, with which would assist to make a decision about the future direction of the business, the ability to make a manoeuvre is too hard, because the gap has become narrow”* (Kissinger, 2022).

Timeliness around making leadership decisions for future direction is essential. A leader must anticipate the future and prepare for it, and in doing also provide for enough preparation time for those impacted to make the necessary changes.

Change and transformational change is challenged by hidden competing commitments, including short-term profits or gains versus long term organisational objectives. This will be evident when management are more focussed on achieving short-term goals (for example on a month-to-month basis), rather than the longer term organisational objectives. Change is also often challenged by closely held values, or perceptions of what is essential. This can be seen when there are continuing efforts to satisfy stakeholders who will not let go of the status quo, even when the evidence suggests that ultimately it will lead to failure (Kegan & Lahey, 2011).

Leading change will also be difficult when there is an inability to agree on 'establishing a sense of urgency'. A regular pitfall is where there is an inability to agree that there is a problem; is it an actual problem? It can be very easy to be busy, being busy. This makes it hard to see, interpret, understand, and agree on the 'main thing' that is an issue or is of concern. If we cannot agree, or leadership cannot convince us that a problem exists, then we are not likely to change our ways or our businesses to address what is required. The 'issue' or 'concern' will not be a main priority. Instead people maintain a level of complacency, possibly related to successes of the past. (Kotter, A Sense of Urgency, 2008). When recent success has been profitable or lucrative, the appetite to change what is perceived as a winning formula diminishes.

Success in leadership requires balance between intrapersonal and interpersonal skills. Soft skills have long been considered an important aspect of connecting with other people. Key interpersonal skills such as listening attentively, not criticising or complaining embeds a strong foundation for a work or business relationship (Carnegie, 2009). The points that Carnegie makes are important and relevant when considering intrapersonal and interpersonal skills within a leadership role. However, when contrasting these to the leadership requirements for achieving transformational change, interpersonal skills are only one small aspect. They are an important tool to rely on when implementing the larger piece of work required to complete the change proposed – i.e. they assist the leader in facilitating the change required by others.

The impact a leader may have, or their shortcomings, are often unknown to them without completing a feedback process. The Leadership Circle is a 360° assessment tool which provides insights that are broken down to Creative Competencies and Reactive Tendencies, and moves further down to Task and Relationship tendencies. There are eight competencies under the following headings (The Leadership Circle, 2023);

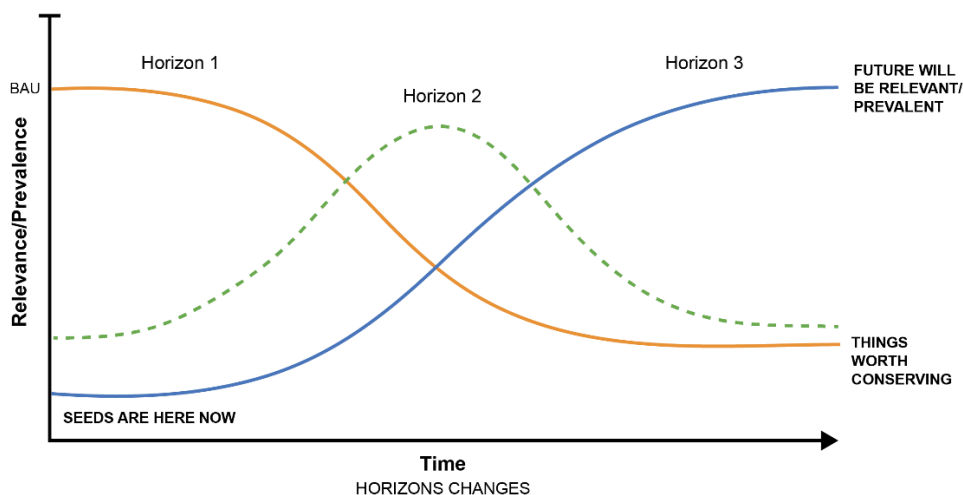
- Creative; relating, self-awareness, authenticity, systems awareness, achieving.
- Reactive; complying, protecting and controlling.

The competencies are broken down into 29 further dimensions to provide the identity with more detail and key tools to develop areas where small changes to shortcomings can greatly assist effectiveness of their leadership. (The Leadership Circle, 2023). This knowledge gives the leader insights into the way their leadership is holding back the achievement of organisational objectives. Gaining more insight into how leaders are operating and perceived will provide greater opportunity for effective change.

4.3 Literature review – Leadership frameworks

Leadership frameworks often focus on either guiding interpersonal skills or consider human behaviour and interactions. Only some of the leadership frameworks within the literature review took into account the time required to consider and then embed change or transformational change. The lack of time required to embed all the changes was a key criticism made in the MIA manifesto (2023). The Horizons of Innovation model (McKinsey & Company, 2023) was presented in a revised form by Chris Parsons during the Kellogg programme (2023). This is outlined below in Figure 1. A foundation of the three-horizons model is that the time scale is broken down into three horizons. The factors that are considered important in horizon three, the future, have very little significant importance in horizon one, the present day. As a consequence, more attention must be paid to the necessary changes in horizon three while within (living in) horizon one.

Timing of decision-making is important in the context of transformational change. When considering the time required to achieve transformational change, and linking this to Worley and Cumings (Worley & Cumings, 2009) decisions are required in anticipation of changes to the environment. This is a challenging starting point for any leader.



McKinseys Three Horizons, edited by Chris Parsons

Figure 1: McKinseys Three Horizons model, edited by Chris Parsons (phase 1, Kellogg Programme) January 2023.

The McKinsey model has a traditional application for innovation. “Where horizon 1 is about continuously improving, and finding ways to innovation within your existing business through incremental improvements, Horizon 2 is bridging time to take what the business is currently good at, and extending this as much as possible. Testing the ground for horizon 3. Horizon 3 is about transformational disruptive change to your business” (Hocken, 2017)

The revision to McKinsey model, outlined above is portrayed on the y-axis. The things that are relevant now will be less relevant in the future, and things seemingly innocuous in horizon 1 may have significant impact in horizon 3. Delaying decisions to react within horizon 1 only shortens the timeframe to react to change approaching






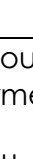

within horizon 3. This ties the revision of McKinsey's Three Horizons to Kissinger's position of leading with scarcity of information and highlights the ambiguity and challenge of leadership. History tells us this time and time again, through real examples of horizon 1, 2 and 3. This report explores these further within section 6 and the case studies.

On a larger scale, which could be explored with systems thinking, the changes within a business or industry are often bigger than any one organisation and is therefore determined by the interplay and relationship between industry leaders, policymakers and government.

John Kotter has authored several novels on transformational leadership and has explained what he sees as eight steps for achieving transformational leadership. The first two critical steps are the most common steps where transformational change fails. These include where the leader, or the organisation has not created a great enough sense of urgency to change. The second step where transformational change fails is not creating a powerful enough guiding coalition (Kotter, Harvard Business Review, 2023). Kotter's model provides us with better understanding of the characteristics of leadership and the process required to achieve transformational change.

In addition, the Three Horizons Model guides leaders on the important, relevant factors to consider when making the change, including, critically, an assessment of what will be relevant in the future.

Table 1. - Eight steps to transforming your organisation (Harvard Business Review, 2011)
John Kotter

	<p>Step 1: Establishing a sense of urgency.</p> <ul style="list-style-type: none"> - Identifying and discussing crises, potential crises, or significant opportunities.
	<p>Step 2: Forming a powerful guiding coalition.</p> <ul style="list-style-type: none"> - Assembling a group with enough power to lead the change effort. - Encouraging the group to work together as a team.
	<p>Step 3: Creating a vision.</p> <ul style="list-style-type: none"> - Creating a vision to help direct the change effort. - Developing strategies for achieving that vision.
	<p>Step 4: Communicating the vision</p> <ul style="list-style-type: none"> - Using every vehicle possible to communicate the new vision and strategies. - Teaching new behaviours by the example of the guiding coalition.
	<p>Step 5: Empowering others to act on vision.</p> <ul style="list-style-type: none"> - Getting rid of the obstacles to change. - Changing systems or structures that seriously undermine the vision. - Encouraging risk taking and non-traditional ideas, activities and actions.
	<p>Step 6: Planning for and creating short-term wins</p> <ul style="list-style-type: none"> - Planning for visible performance improvements. - Creating those improvements. - Recognising and reward employees * involved in those improvements.
	<p>Step 7: Consolidating improvements and producing still more change.</p> <ul style="list-style-type: none"> - Using increased credibility to change systems, structures and policies that don't fit the vision. - Hiring, promoting and developing employees who can implement the vision. - Reinvigorating the process with new projects, themes, and change agents.
	<p>Step 8: Institutionalising new approaches</p> <ul style="list-style-type: none"> - Articulating the connections between the new behaviours and corporate success. - Developing the means to ensure leadership development and succession.

* outlines organisational change where employees are affected, as opposed to farmers and growers with this report.

Kotter has carefully outlined these as steps which implies a chronological order to the approach to transforming an organisation.

Key themes emerging from the literature review around transformative change include the fact that leading change is ambiguous and uncertainty exists. In order to achieve change, those implementing the change need to have enough urgency around the fact that a change is required. The absence of urgency to change, or a preference for the status quo, will inhibit the foundations of embedding change. Leaders are also required to possess a range of skills at an individual level to navigate the changes, and ensure that the people being led are with them on the journey. Importantly, change needs to be instigated early to allow enough time to lead the change. When delays do occur, this will adversely shorten the time-frame to react.

Information gathered from the literature review was used as the foundation for questions asked in the semi-structured interviews.

Section 5: Thematic Analysis

5.1 Interviews

This section analyses data from the semi-structured interviews on good/not so good leadership. In keeping with the objectives of the report, this section looks to explore, understand and articulate the characteristics of leadership which support achieving transformational change successfully.

The findings of the literature review framed a hypothesis that successful transformational change requires leadership that follows sequential steps, with an understanding and acceptance of the urgency of the change required. There is a need to ensure those affected by the changes are well informed and 'with' the leader, while allowing enough time to embed the change as the new norm.

A substantial dataset of information was obtained through completing 13 semi structured interviews. This is considered an acceptable sample size given the breadth of experience the industry leaders represented. The dataset is captured in the appendix of this report and tabulated in Table 3. The themes emerging from the interviews have been drawn using a deductive approach as described by Braun and Clarke, 2012 in order to focus the project topic and provide clarity and understanding around what the interviewees are articulating to the author.

Table 2. Thematic analysis of interview responses using the deductive approach of transformational change, leadership characteristics and examples.

<p><i>Transformational change:</i></p>	<p><u>Literature</u></p> <ul style="list-style-type: none"> • Completing change with iterative steps. John Kotter's – <i>Steps for Transformational Change</i> • New Zealand primary industry context – change happening too quickly, linked to McKinsey's Three Horizons model • Urgency is a necessary requirement to make changes • Competing and diverging commitments contest the need for change • Complacency or preference for the current position inhibits change <p><u>Interviews</u></p> <ul style="list-style-type: none"> • Processors now have an important role, measuring and monitoring • Industry unity, alignment and trust are essential
<p><i>Successful leadership characteristics</i></p>	<p><u>Literature</u></p> <ul style="list-style-type: none"> • Ambiguity, scarcity of information • Balance between too bold/confrontational or too timid/passive • People 'with' the leaders on the journey • Intrapersonal and interpersonal skills <p><u>Interviews:</u></p> <ul style="list-style-type: none"> • Strength, commitment and openness to the face leadership challenges • Bold, brave, courage, urgency, sincerity • Farmers are the best people to lead other farmers • Framework setting and accountability • Collaborating to form coalitions • Disagreeing respectfully and professionally
<p><i>Successful leadership examples</i></p>	<p><u>Interviews:</u></p> <ul style="list-style-type: none"> • Assurance quality programmes • Industry processors promoting, supporting and incentivising change • Community led – catchment groups • Unified and bonded – dairy farmers to a single dairy processor • Collaborative leadership approach – Land and Water Forum • Biosecurity support to unite against threats

Analysis of the interview information demonstrated good alignment with the literature but linked to New Zealand specific examples.

One example is the greater requirements of 'processors' with regard to environmental practices. There is an increasing expectation for New Zealand farmers and growers to align with industry changes. A farmer or grower has to conform to these expectations as part of running their business. In sectors like dairy, where a supplier farmer is linked to a processor for a whole season and can be a shareholder, there are limited options to change suppliers and the terms of supply. The data suggests an increasing acceptance of this 'processor' role in supporting change inside the farm gates. However, this has not always been the case. The Fonterra Clean Streams Accord was not met with the same level of support in 2002/03 as outlined in table 3. This initiative was ahead of its time. Since then there have been significant gains in the management of on farm practices with input from processors.

Working together, collaboration and coalition is a key theme to the successful characteristics and examples of leadership. This is accentuated when farmers are leading other farmers through the process of change as displayed by the freshwater river catchment groups across New Zealand. The intrapersonal skills that are required to lead well are a foundation or cornerstone, notably effective communication, to the success of these catchment groups and other collective initiatives.

Table 3. – Summary of the insights from semi-structured interviews with 13 industry leaders on their views of 'good' and 'not-so-good' leadership characteristics and examples.

<p><u>Good leadership characteristics</u></p> <ul style="list-style-type: none"> • Willingness and courage • Breakdown boundaries • Pause to take stock = don't defend the status quo • Consider the alternatives without bias • Weaving together – answers are in the room • Allowing the space and grace to fail • Set expectations and measure them • Honest & frank conversations – no sugar coating • Determination + relentless + brave + urgency • The ability to agree or disagree, but not let that poison the next thing we work on • Having an open mindset • Explaining <i>the why</i> • Able to collaborate and compete, at the same time, but on different issues. 	<p><u>Not so good leadership characteristics</u></p> <ul style="list-style-type: none"> • Defensive • Fear-based decision making • Not enough independent Chairs on NZ boards. • Passive behaviour • Grudge holding • Tall poppy syndrome • Closed mindset • Finger pointing • Challenging
<p><u>Good leadership examples</u></p> <ul style="list-style-type: none"> • NZ Farm Assurance Plan Plus • Synlait Lead With Pride • Freshwater catchment groups • Fonterra Clean Streams Accord • Te Puna Whakaaronui • He Waka Eke Noa + Unity + Future opportunity to use • Dairy industry = collaboration • Mycoplasma bovis = collaboration • Land and Water Forum • Rabobank Sustainability pod cast. 	<p><u>Not so good leadership examples</u></p> <ul style="list-style-type: none"> • Groundswell • Not taking people on the journey • He Waka Eke Noa • Fonterra – growth without capital structure to support. • Levy bodies – voted position. Therefore, advocacy trumps leadership. • Land and Water Forum • Member Organisations • Course wool – 'in market' persuasion

<ul style="list-style-type: none"> • Red Meat Profit Partnerships • Food miles debate 2010/12 – squashed. • Agri Womans Development Trust 	<ul style="list-style-type: none"> • Sustainability historically ‘too hot to handle’
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Within table 3, the research shows that some organisations or examples of leadership are duplicated as both good and not-so-good examples of leadership. This strengthens Kissinger’s point that ambiguity and scarcity are common when making leadership decisions, and the importance of ‘having the people with you’. The research illustrates that the intrapersonal skill of communication within leadership is an important characteristic when achieving outcomes of transformational change.

Some of the interviewees were clear that member organisations such as Federated Farmers, and levy bodies with voted director positions, by virtue of their mandate, are not equipped to lead transformational change. When senior positions are appointed through a voting process, and member organisations rely on annual fee subscriptions or a populous vote to maintain their financial viability, it becomes more difficult to disrupt the status quo while trying to achieve change. An example outlined within the interviews, was the Beef and Lamb New Zealand (B+LNZ) 2023 AGM, where there was significant challenges to leadership, and the recent performance of B+LNZ as outlined within five of the eight farmer proposal remits. The significant challenges suggested by interviewees were said to have arisen out B+LNZ not having communicated effectively with their levy payers. The secondary effect is a drop in the popularity of leadership within constituents, therefore making it difficult to be successfully voted for another term and to lead transformative change with the support of the relevant parties over multiple time horizons.

When linking the descriptors in Table 3 of good leadership characteristics “*Determination + relentless + brave + urgency*” it seems clear that member organisations and levy bodies have a significant role to play in the New Zealand primary industry; however, it is less clear whether they are set up in a manner which enables them to lead transformational change in the manner presently required.

The broad themes from the semi-structured interviews support the learnings within the literature review. There was several recommendations from the interviewees to pursue case studies to further extrapolate the research with real examples of leadership and transformational change within the New Zealand primary industry.

Section 6: Case studies on transformational leadership

Section 6.1: Case study 1 – deregulation of New Zealand Agriculture from subsidies in 1984

Introduction; Subsidies paid to New Zealand farmers and growers before 1984 were near \$1b per annum from the New Zealand Government. This quantum meant that New Zealand fiscally needed to be in a position to continue to meet these subsidies. Following the 1984 change of government from the Muldoon-led National Party to David Lange-led Labour Party, the new Minister of Finance, Roger Douglas, produced a budget which ceased the continuation of subsidy payments to farmers. Many present day farmers , with the benefit of hindsight, are of the opinion that this change

was the best thing that could have happened to New Zealand agriculture. An equal proportion of farmers will also bleakly describe the 'overnight' nature of removing the subsidies as one of the poorest management decisions by any Government in New Zealand - ever. 'Overnight' is a metaphorical term when the change occurred over a period of closer to 10 months.

Background: The foundation of events leading to the New Zealand fiscal position in 1984, and the removal of subsidies commenced twelve years earlier in 1972. During these twelve years, the global economic and domestic events combined to impact on New Zealand's financial position. This meant that the production subsidy payments to New Zealand farmers and growers could not realistically continue.

Nonetheless, the absence of proactive consideration of the combined impact of these events, rather than each event in isolation, led to the need for deregulation. The broad sweeping changes to the sector significantly impacted the farming community. The impact of this was a devastating drop in meat returns for New Zealand farmers. Processors also found themselves with a shrinking market. England preferred trading with the EEC, and no prior marketing divisions and no 'single desk seller' structure. Lamb and ewe price returns fell; and it was not unheard of for farmers to receive an invoice from the processor for the costs of killing and processing ewes.

Chief coroner statistics reveal a sharp 18% increase in suicides from 1983 – 1984. While there is no reliable reported information relating to farmer suicides, the New Zealand Provincial Support Group have claimed to have known of 52 farmers' suicides in one calendar year (Wallace, 2014).

Table 4. - Timeline of key economic, political, trade and economic events prior to the 1984 removal of subsidies

1973	United Kingdom and Ireland (amongst others) joined the European Economic Community (UK Parliament, 2023), destabilising what was traditionally held as certain lamb export market	Horizon one	
1973	Oil embargo of the Arab oil producers imposed supply cuts on Israel allies, including Britain, USA and across the western world. Prompting a big spike in the oil price from \$3/barrel to \$20/barrel, and global shortages.		
1973	The end of an Agricultural commodities price boom, immediately affecting lamb and cheese.		
1974	The terms of trade, the measure of export prices to import prices dropped 38% to the lowest level since the Depression (Sleeman, 2008)		
1974 – 78	Debt ballooned for New Zealand from \$465m at 5.1% of GDP (1974) to \$3.255b at 21.4% of GDP (1978) (RBNZ, 1983)	Horizon two	
1975 - 78	'Think Big' interventionist state economic strategy to borrow heavily off-shore to complete infrastructure projects, largely as a response to the oil shocks of the early 1970s in an effort to enable New Zealand to become less reliant on off-shore energy.		
1976 – 78	Recession in NZ, unemployment doubled from 0.8% to 1.7% (Boshier, 2022).		
1976	Inflation is running at 16.91%, this is up from 6.93% in 1972 (Trends, 2023).		
1977	Implementation of the Livestock Incentive scheme encouraging farmers to carry more stock, by 1982, this led to 25% increase sheep numbers from 55m to 70m "Produce our way out of this". Increasing employment on farm to reduce unemployment.		
1978	Supplementary Minimum Price (SMPs) put in place by Muldoon with the aim to provide consistent and predictable incomes for farmers.		
1978	Election campaign, Prime Minister Robert Muldoon 'Programme launched to slash the petrol bill by use of Maui Gas' (Boshier, 2022). Significant capital spend.		
1979 Mar	International Monetary Fund visit to New Zealand for 10 days (Gustafson, 2000) with recommendations for improving fiscal management.		
1980	SMPs increase in Agricultural Subsidies		Horizon three
1984	Snap election, National Party lost to Labour Party		
1984	Commence the removal of subsidies for Agriculture.		
1985	Red meat and dairy prices plummet		

Over the course of this timeline, the Labour Party and then the National Party (into power in 1974) initially put steps or measures in place to alleviate the immediate challenges to industry. The government intended to curb an energy crisis and unforeseen market volatility while facing an unknown timeframe for when it might end. The stimulus package was a combination of 'produce our way out of it' for Agriculture, specifically via the Livestock Incentive Scheme, and 'insulate ourselves' from energy shocks, with a lofty goal of becoming a net energy revenue earner via significant investment in energy production projects. Unemployment was at record highs of 1.7%. The Muldoon reaction has been said to have been influenced by traumatic stress associated with being 'children of the Great Depression' (Gustafson, 2000). Muldoon himself had etched into his memory the impacts of the Great Depression and was prepared to make whatever decisions were required to alleviate New Zealand suffering the same fate again.

The International Monetary Fund visited NZ in March 1979 (Gustafson, 2000), which made a broad array of recommendations. These recommendations ranged from monetary policy to devaluing the New Zealand dollar. *"In conclusion, the IMF (International Monetary Fund) warned that the Government would have to make*

'significant policy changes' and 'the longer these changes are delayed, the greater the risk that draconian measures would become inevitable in the future' (Gustafson, 2000). Muldoon as Prime Minister and Minister of Finance had a broad range of concerns himself, not least the National Party political share of the vote (the 1978 election) and the challenges that faced him with making the proposed policy changes within New Zealand. Ultimately the changes that were made were in areas that the IMF recommended, but they were far more cautious than suggested. Deregulation was not addressed in favour of short-term intervention in the economy. Maintaining the Muldoon-led longer-term growth strategy, later known as 'Think Big' projects, New Zealand debt balances were increased to fund various projects.

The leadership issues came about 1980 – 1984 when Prime Minister Muldoon, the Minister of Finance, was not interested in taking advice from Treasury, and doubled down to support Farmers via the subsidised stimulus packages. This silo thinking, coupled with speed/haste, and the absence of engagement with other expertise, all led to the great surprise of 'overnight deregulation'.

By June 1984, Prime Minister Robert Muldoon called a snap election, which the National Party lost. For the short period that followed between losing that election and the Labour Party taking power it is hard to determine fact from fiction. What is widely accepted is that the decision relating to the New Zealand Exchange Rate (at the time pegged to the US Dollar) was that it was overvalued. The government planned to devalue by 20%. Intense speculation led to the foreign exchange market being closed to protect the economy. The secondary effect of this was that the New Zealand cash reserves staggered to less than one day on hand and were perilously close to default. The incoming Labour Party needed to make decisions quickly, and agriculture was an easy target to steady the fiscal ship. Abolishing Supplementary Minimum Pricing (SMPs) was the obvious solution. However, this should have been phased over several years as part of a strategic plan. Instead, the speed at which this change was implemented led to what we now know to be a devastating effect on agricultural communities of the time.

Evaluation of the Case;

The key finding of this case study is that the absence of good leadership characteristics across the 6-8 years prior to deregulation led to an outcome where agriculture subsidies were revised 'overnight'.

As is evident from Table 3, a number of issues and events were considered in isolation over time, rather than having regard to the effect of cumulating events and increased financial pressure within New Zealand. For example, as a matter of economic principle, a major trade partner joining an European Economic Community will likely cause a fall in demand. The response of increasing sheep meat production by 25 million head to boost export earnings had the opposite effect, swamping the supply aspect of market equilibrium. Additionally, oil shocks and energy crises results in large-scale infrastructure investment, leading to deepening national debt volumes.

The failure to consider the effect of global and domestic events in combination meant that there were inevitable deregulation was a blunt, fast decision, with no or little

warning, and therefore no ability for farmers to prepare, plan or respond to the events at play.

When aligning this case study to the Kotter principles of Why Transformational Change Fails; there was no **'sense of urgency'** to address each issue the economy faced and there was no **'powerful guiding coalition'**. In fact, with Muldoon as Prime Minister and Minister of Finance, the opposite was occurring. Muldoon was operating in a vacuum. Treasury raised concerns about the absence of collaborative policy work, but the outcome remained unchanged. The Muldoon-led Government tried to pre-empt market forces and movements and insulate the local economy rather than face the reality of the country's position.

The new Labour Government inherited the risk of New Zealand defaulting on financial obligations and needed to make swift decisions. The quick abolishment of subsidies paid to the primary sector was a quick win for the newly elected Labour Party and Roger Douglas.

The short-sighted leadership of the then National Government and Muldoon is also evident in Table 3 (above) as decisions were made reacting to events in isolation, rather than reviewing the cumulative impact of all the decisions together. On the right hand side the author has portrayed the timeline of events prior to deregulation against the horizon one, two and three depicted in McKinsey's model. This demonstrates that the reactions to the events in horizon one, drastically impact on the outcome in horizon three.

Table 5 Deregulation of New Zealand Agriculture aligned within Kotters 'Eight Steps to Transforming Your Organisation'

Steps and leadership focus	Description of what was occurred
Step 1. Establishing a sense of urgency	<ul style="list-style-type: none"> • There was no sense of urgency to react to the concern outlined by the IMF visit to New Zealand - March 1979. • Actions under the Muldoon Govt taken were to insulate against energy shocks. Treasury conveys concerns at the quantum public debt (Treasury paper March 1983), but expresses this aligns with other countries. • Significant urgency when the New Zealand Govt close to default, the NZD overvalued and significant foreign exchange speculation.
Step 2. Forming a powerful coalition	<ul style="list-style-type: none"> • Coalition was achieved when it was determined that deregulation needed to happen. • Key coalition was the support of Federated Farmers, led by then Chair Sir Peter Elworthy.
Step 3. Creating a vision	Aspects of these key steps were likely all present through the implementation of deregulation. Through the authors research, there is no apparent application of these steps to lead proactively to the decision to act on regulation.
Step 4. Communicating the vision	
Step 5. Empowering others to act on the vision	

Proposed solutions; solely based on the period leading up to the removal of subsidies.

When considering the characteristics of good leadership, the following attributes are considered to have been missing within the above case study;

- Willingness and courage
- Pause to take stock = don't defend the status quo
- Consider the alternatives without bias
- Weaving together – answers are in the room
- Honest & frank conversations – no sugar coating
- Having an open mindset

Similar themes to those identified in the literature review emerge. In particular, where there is a combination of key individual, or individuals, making a determination of what was their perception of the best way forward, without testing key assumptions or thinking with others. Muldoon acted in a silo, in many ways reactive (not proactive) to the events at hand, defending the status quo, without thought of the need for change in anticipation of events which were on the horizon. Comparing the New Zealand Government under Muldoon is a direct contrast to Henry Kissinger's summary of leadership, and the importance of taking people with you. This led to significant hurt to the industry.

Section 6.2: Case study 2 – The Land & Water Forum

Introduction

Water use globally is complicated, and New Zealand has proved to be no different. The Land and Water Forum commenced in August 2009 under a model of collaborative processes. This approach was designed on the premise that other processes had not worked, or were not working; Clean Streams Accord 2003, the Resource Management Act 1991 and the Water and Soil Conservation Act. The collaborative approach was led by Guy Salmon who had, at the time, recently researched collaborative processes within Nordic countries which led to better sustainable outcomes for infrastructure and resource allocation (Eppel, 2013).

The Land and Water Forum continued to July 2018. The purpose of the Land and Water Forum was to put fragmented fresh water policies across the country into a framework for regional councils to set freshwater objectives and develop limits for freshwater use. In an effort to recognise that fresh water is important to all of Aotearoa New Zealand, the Land & Water Forum brought together a very wide range of agriculture industry groups, environmental and recreational NGOs, Iwi, scientists, and other smaller organisations with a stake in freshwater and land management.

The Forum members was broken down into groups;

- Central and local government active observers: 13 groups.
- Small group organisations; 21 major stakeholders, assisted by six of the active observers, which then reported to the plenary.
- Plenary; 57 organisations.

There was some duplication of representation, which meant that there was a total of 58 participating organisations within the Land and Water Forum.

The Land and Water Forum did a significant amount of work including four reports, advice to Ministers on ways to amend the then version of the National Policy Statement Freshwater Management, and the implementation of recommendations of what still needed to be done – completed December 2017 (A Common Direction for Water Management in New Zealand, 2023).

Background to the case study on Land and Water Forum and alignment to Kotter's principles of transformational change:

This was adopted as a case study from a literature review and feedback from semi-structured interviews. The Land and Water Forum is an example of change that was achieved and embedded over a long period of time. When the Land and Water Forum was formed the overarching challenge related to freshwater management, and the fact that some uses and users are complementary to each other, and some are in conflict. It was therefore easy to determine the *sense of urgency*.

Water allocation seemingly was treated on a first-in-first-served basis. This led to costly, wasteful and litigious processes with adversarial outcomes. The limits of water take were difficult to set, along with the absence of standardised monitoring and enforcement of rules. When resource consents were granted, the conditions were variable. Overarching this was what was in the opinion of the Land and Water Forum an absence of quality governance across all the regional councils. The Land and Water Forum also noted that Māori consider water as *Taonga*, however, there was no clear path for iwi to be involved in the management of freshwater including through regional council regulatory frameworks. There were also considered to be inconsistencies in the science of data collection, monitoring and analysis.

It was apparent that there was no single organisation tasked with providing leadership or coordination. An exception was the Fonterra Clean Streams Accord which had been voted on in 2002, years before the Land and Water Forum. In many ways this Fonterra policy was ahead of its time, but it also caused considerable consternation in relation to roles and responsibilities of processors. It was visionary leadership with an insight of what was to come, when considering the role of processors today.

The third report of the Land and Water Forum was released October 2012 (The Land and Water Forum, 2012). The purpose of this report was to give direction on implementation of a land and water management which was fair and accountable.

Evaluation of the Case:

Fresh water management needed strong leadership due to the imbalances of management and use of water across New Zealand.

The first characteristic of good leadership was the forming of the coalition and the coming together of the Land and Water Forum members. There were three key leadership characteristics shown when forming the coalition:

- The first and arguably the most critical component was that government did not allow any of the Land and Water Forum members to lobby the government in isolation. This ensured that one stakeholder would not benefit from breaking ranks from the Land and Water Forum, and undermining the trust of the wider

group. This cemented commitment to the Land Water Forum and provided the impetus to keep working together when the temptation to waiver arose.

- The second component was that the Land and Water Forum members spent the first six months learning and understanding what was important to each other. They took time to learn about the different roles/parts they played.
- The third component was taking the ambitions of the Land and Water Forum on the road and meeting with approximately 1200 people in meetings throughout New Zealand. To embed the concept of collaboration at each meeting, each of the Land and Water Forum members presented the perspective of the other. This involved a farmer presenting information that was important to Forest and Bird or another environmental group, and vice versa.

Collaborative governance evolved through the Land and Water Forum. There was improved governance and improved national direction (Baines & O'Brien, 2012)

Not everyone agrees that the Land and Water Forum was a success. The sheer volume of participants in the Land and Water Forum, and the amount of engagement over a long period of time lost parts of the New Zealand primary sector. Some interviewees outlined that this was *“the longest talk fest ever undertaken in New Zealand agriculture”*. Others outlined that the *“policy or legislating to the bottom 10% of water polluters is a blunt force instrument”*. Leaders who take this position make a relevant point but they have also not necessarily understood that New Zealand farmers are no longer able to undertake whatever activity they wish within the four pegs of their boundary. The bundle of rights associated with property ownership (and a certificate of title) cannot be viewed independently of the rights of landowners down the road who are also a freshwater user impacted by decisions of other users within the relevant catchment. Notwithstanding this, a project which spans over ten years is going to challenge the patience of those seeking an outcome.

Table 6. Testing the Land and Forum case study against Kotters 'Eight Steps to Transforming Your Organisation'

Steps and leadership focus.	Description of what occurred.
Step 1. Establishing a sense of urgency.	<ul style="list-style-type: none"> • As a generalisation, across NZ, the Regional Councils at the time did not have consistent policies or planning frameworks in relation to key areas; including freshwater management, limits, and clarity over who gets priority and who pays. There were also data inconsistencies. • There was significant variation between perspectives of regional towns, metropolitan cities and agriculture communities. • Recognition of water as interconnected with land use and land management and as a hydrological system. Lakes, springs, streams, rivers, wetlands, runoff and groundwater are all interconnected. The agreement is was that the standard needs to be considered at an ecological level – a target to strive for. • New Zealand's natural variability of land/soils/contour/aspect was hard to account for in decision making. • There was a <i>physicality</i> that was easy to see. Mainstream media articles featuring stock standing in waterways.
Step 2. Forming a powerful coalition.	<p>Successes:</p> <ul style="list-style-type: none"> • Coming together of such a varied group • Collaborative 'Guy Salmon' approach. • Inability to lobby the government in isolation • The second report, '<i>Setting Limits for Water Quality and Quantity Fresh Water Policy and Plan-Making Through Collaboration.</i>' <p>Challenges;</p> <ul style="list-style-type: none"> • Coming together of a wide and varied group • The process that spanned a long period, individuals and roles change.
Step 3. Creating a vision	<p>The third report, to give direction and strive for implementation that was fair and accountable ;</p> <ul style="list-style-type: none"> • The vision of the Treaty of Waitangi recognitions. • Human health. • Regional Councils to be advised by Central Govt, who are to be guided by a national framework.

Step 4. Communicating the vision.	<ul style="list-style-type: none"> • The third report encouraged the government to take up the recommendations in totality, in the absence of this would risk losing the consensus that had been worked so hard to achieve. • Each of the participants is responsible for their own internal communications, and accentuates.
Step 5. Empowering others to act on the vision.	<ul style="list-style-type: none"> • 17 meetings around New Zealand, presentations completed jointly. • 80 participants • Prior to the 2008 election, there was cross-party agreement to support the Land and Water Forum.
Step 6. Planning for and creating short-term wins	<ul style="list-style-type: none"> • Riparian planting facilitated and funded by local Regional Councils • Fenced off waterways • Launching of fresh water catchment groups.
Step 7. Consolidating wins, and producing still more change.	<ul style="list-style-type: none"> • 2016 letter to the Minister for Environment and Minister for Primary Industries, which was to influence and frame the National Policy Statement for Freshwater 2017. The majority of sector leadership had influence and input to that point. • Catchment Groups have gathered momentum, owning their research science, being by farmers, for farmers.
Step 8. Institutionalising new approaches.	<ul style="list-style-type: none"> • The pride displayed by farmers when displaying fenced off waterways. • There are still aspects of Fresh Water Management yet to be resolved, in some areas.

Summary and proposed solutions:

Freshwater is perceived as a community asset. It is viewed as more than just related to the use of the land and water for farming purposes. An activity in one location can impact water quality in another location. Therefore, the only option for the Land and Water Forum was to have a large consensus. Sometimes the requirement for a large consensus over a large group became cumbersome and time consuming. A solution to reduce the amount of time and resources applied to decision making would be to group members. For example, one overarching member could represent several similar entities (i.e. four Central Government Ministries could be represented by one or two depending on their particular interests). At the other end of the scale, recreational water users could have a representative group on behalf of all them. Any reduction in representation should not dissipate Step 2 of Kotters, Forming a Powerful Coalition.

Terms of reference and structure for engagement should be made more publicly available to allow insight by other users. In doing so, guidance would be readily available for leadership to adopt in their own organisations to bring about transformational change. The outcomes of the Land and Water Forum are well documented, but notably the inputs/structures/strategies adopted within the forum are not available. The exception is the Baines and O'Brien work (2012) documented within the references of this paper, however, this work was conducted early in the Land Water and Forum process, and doesn't report on the outcomes.

Iterative changes, started early are easier to embed within the organisation and in the wider community. This rate of change enables a leader to 'take the people with you'. Smaller pieces of incremental change over a long period of time generally will also achieve better outcomes.

When considering the importance of consumer buying choices and food provenance, New Zealand needs to protect its trade position by protecting its waterways fiercely. The gains achieved to date through the Land and Water Forum should not lose momentum. Clean freshwater and environmentally sustainable practices will become increasingly important to trade requirements. Interviewees who pass flippant comments about why a European consumer would have concerns about waterways on the other side of world. This outlook is short sighted, and tempting fate for a small country that needs to trade with the rest of the world for economic prosperity.

Section 6.3: Case study 3 – Environment and Sustainability

Introduction:

There has been an increasing global trend around sustainability and climate friendly businesses since before 1990 (Reganold, Papendick, & Parr, 1990) . The drivers are multifaceted, with a focus on all aspects of Environment, Social and Governance. For the purposes of this case study, there has been a focus on leadership around the environment, specially relating to agriculture.

Four key areas were identified as challenging to New Zealand agriculture in the present day. These are; indigenous biodiversity, animal welfare, freshwater management and climate change. All four areas are challenging leadership within New Zealand and across the globe. Due to research limitations, the author is not in a position to explore in depth each individual area. Instead all four areas were used as a framework to describe '*good and not so good leadership*' on environmental issues when conducting the semi-structured interviews – sample size 13. When considering these environmental issues within the interviews, the discussion gravitated to climate change, and freshwater management. In response to this, the author made the decision to focus solely on climate change when considering characteristics of leadership with regard to this specific case study.

The focus of this case study is leadership in relation to the agriculture sectors greenhouse gases (GHGs) emissions reduction within New Zealand.

Background:

New Zealand first passed legislation in relation to climate change in 2002 (Climate Change Response Act (2002)). By 2008 New Zealand had introduced the first emissions trading scheme (ETS) in the world that was designed to cover all sectors of the economy and the six major greenhouse gases, Carbon dioxide, Methane, Nitrous oxide and the three industrial gases.

Emissions targets are important for New Zealand to meet its commitments. New Zealand has an international target to meet under the Paris Accord, and a domestic target. They are to reduce net GHG emissions to 50 per cent below gross 2005 levels

by 2030 and 24-47 percent below the 2017 biogenic methane emissions by 2050, including 10 per cent below 2017 biogenic methane emissions by 2030 respectively.

Emissions targets are also important for New Zealand's trade. An example of this is Nestle, a significant customer of the New Zealand dairy sector, which has stated their business ambitions to be net zero emissions by 2050. Nestle also states "*The vast majority of our GHG emissions (95%) come from activities in our supply chain*" (Nestle, 2023). While Nestle is outlining their ambition to become net zero carbon, 95% of this goal sits with their supply chain. This equates to a reduction from 50.6million tonnes of CO₂e down to 29.3million tonnes of CO₂e from dairy and livestock emissions (sourcing ingredients). Nestle, a global multinational, are putting the New Zealand farmers on notice now, that their ambitions to be net zero by 2050 are heavily reliant on milk and plant supplier reducing emissions. As described in the McKinsey Three Horizons Model, this is a notice of what to expect in Horizon 2 (2030) and Horizon 3 (2050).

In the absence of physically being able to see, feel or touch GHGs and Methane emissions, we are heavily reliant on science to explain the climate change phenomenon. There is an extraordinarily large quantity of substantiated science stating that ruminant animals produce methane, and methane is a significant contributor to climate change. In the case of New Zealand, it is anticipated to be about half of the country's emissions. Despite this, there is a proportion of New Zealand farmers and growers who do not accept the science. They seek to counter it with opposing science, often unsubstantiated, with the suggestion that methane from animals is not the issue. These countering arguments range from incorrect Global Warming Potential (GWP) with measuring techniques being inaccurate, GWP* vs GWP100 .These views are closely held, arguably swayed by misinformation, and are very difficult to deviate from.

As observed through the literature review, closely held views characterise '*Change Management – HBR, The Real Reason People Won't Change*' (Kegan & Lahey, 2011)'. These factors brought together qualify why leadership is challenging in regard to climate change as outlined by Kissinger in *Leadership "... between relative certainties and the ambiguities of the future..."* (Kissinger, 2022)

Table 7. Climate change and the Emissions Trading Scheme (ETS). A precis timeline of New Zealand Government and International key events in relation Climate Change and the ETS.

Year	New Zealand	International
2002	Climate Change Response Act	
2005	Government decided not to proceed with a carbon tax.	
2007	Government established the Climate Change Leaders Forum and the Māori Reference Group.	
2007	Government established Technical Advisory Groups	
2008		First commitment period of the Kyoto Protocol began.
2008	Government passed founding Legislation for the ETS	
2008	NZ General Election resulted in a National led government, and the first NZ ETS review.	
2009	Parliament passed the Climate Change Response Amendment Bill (Emissions Trading Forestry Sector)	
2009	Government Announced conditional 2020 target of GHGs at 10–20% below the 1990 level	
2009		UNFCCC conference in Copenhagen.
2010	Government appointed a panel for second ETS review.	
2011	Agriculture joins other sectors to start mandatory ETS reporting.	
2011	Government set a target of GHG 50% below 1990 level.	
2012	Parliament passed the Climate Change (ETS and others) Amendment Bill	
2013	Government announced unconditional 2020 GHG target of 5% below 1990 levels.	
2015	Government announced 2030 GHG target of 30% below the 2005 level (10% below the 1990 level).	
2015	Government launched consultation on third NZ review of the ETS.	UNFCCC conference in Paris.
2019	Establishment of He Waka Eke Noa	
2019	Establishment of the Climate Change Commission	
2019	Climate Change Response (Zero Carbon) Amendment Act	

Footnote: this is not an all-encompassing review of changes made in relation to the ETS, but some key points, abbreviated directly. (Motu.nz, 2023) (Wikipedia, 2023) (Ministry for the Environment - climate change, 2023)

Table 7. demonstrates the long period of time between passing the first piece of legislation relating to climate change in 2002 to present day. When considering the McKinsey Three Horizons Model, after enacting the Climate Change Response Act 2002 the New Zealand Government was operating past “BAU” and forward-looking past Horizon 1 to Horizon 2 and Horizon 3.

He Waka Eke Noa (HWEN) was established in 2019. He Waka Eke Noa was designed to assist New Zealand and the food and fibre sector to support global efforts to tackle climate change. The was the first time that this number of leaders in agriculture have come together to work on one industry issue together. The target is to address on-farm emissions of biogenic methane, nitrous oxide and carbon dioxide.

“Nitrous oxide and methane from agriculture make up almost half of Aotearoa New Zealand’s total greenhouse gas emissions, these are however excluded from emissions pricing within the NZ ETS. In 2019 the NZ Government made the decision to put a price on the agricultural emissions from 2025 to close the gap in our climate response and to help us meet our emissions reductions goals. As a key step to this, He Waka Eke Noa – Primary Sector Climate Action Partnership was set-up to equip farmers to measure, manage and reduce on-farm agriculture gas emissions and adapt to climate change” (Ministry for the Environment - climate change, 2023)

In order to understand the nature of the leadership around climate change, it is important to understand the structure within which it has been operating.

The structure for He Waka Eke Noa is set out below.

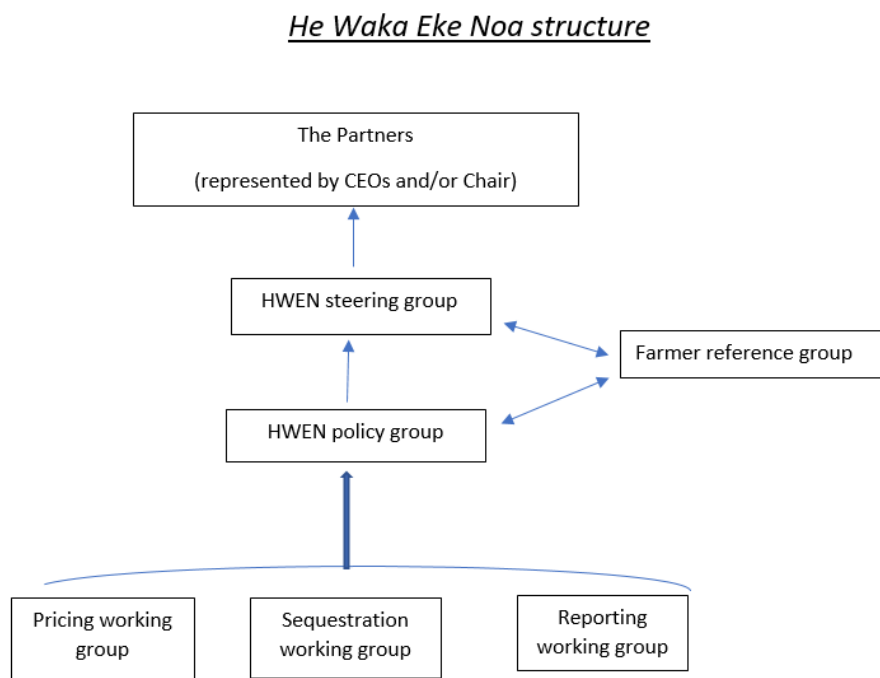


Fig. 2. He Waka Eke Noa structure (source interviewee) April 2023.

A number of key points can be made in relation to the above structure:

- There were 13 Partners including Government. The steering group was a sub-group of the Partners. The process was supported by the Programme Office, led by the General Manager, Kelly Forster, 3-4 external consultants and a support team.
- Each working group was supported by the Programme Office and had representatives from Partners where it was relevant. The working groups reported to the HWEN policy group. The policy group reported to the steering group, and the steering group reported to the Partners who signed off recommendations in conjunction with leadership teams of their organisations.
- The farmer reference group was made up of farmers across most land uses and were appointed by the partners. The farmers were engaged throughout the process including to provide feedback on the development of options.

The timelines at play meant that there was a significant amount of work to progress throughout the He Waka Eke Noa structure. The process was constrained in time, which meant the ability for collaboration was more limited. Funding for the process was split 50/50 between Govt and industry partners.

Ultimately, the HWEN process was rushed due to having a hard deadline set by Central Government. It was fast-paced and quick moving, with insufficient ability to slow down and 'take the farmers on the journey'.

Communication was challenging. In order to build consensus through the process, a lot of work had to be done behind closed doors as ideas were considered and adapted by those involved. All external communications from the He Waka Eke Noa Programme Office needed to be agreed upon by all the Partners and signed off at the Partners' level for any written communications. This limited what could go out in a timely manner. This challenged the ability to 'communicate the vision'.

It was the responsibility of each of the Partners to go back to their respective organisations and articulate where their organisation and the process was at. There was a delicate balance in respecting the HWEN process, of which confidentiality was a cornerstone, while trying to achieve alignment of messaging and positioning across each organisation. Some sectors were better placed than others to do this well.

The farmer reference group was regularly consulted throughout the process but could have been used more. The working groups were made up of technical staff who had little mandate or no ability to compromise and were not required to, nor could they at that level. Their role was most useful therefore in setting out technical details, highlighting trade-offs and articulating positions to their member groups, as opposed to trying to get consensus. In many ways using the farmer reference group to support/inform gaining consensus at the Steering Group level would have made more sense. Notwithstanding the above, the Partners have achieved an extraordinary level of agreement, especially given the details that had to be applied.

It is likely that having some farmers at the Working Group level would help with consensus. There is a challenge around resourcing, in that farmers are generally short of time and this would be a large commitment, over a long period of time. It is also difficult to be the only farmer voice in these groups with the risk of being the scapegoat of the wider industry if it does not land 'right'. These factors all mean that it is not as easy as simply requiring or stating that 'farmers should be in the room' (pers. com)

Evaluation of the Case

Evaluation of this case study could be construed as preliminary given the HWEN process is not yet complete. However, given how contentious this issue is, and the ambiguities involved in managing the necessary changes for industry, it is a strong case study for assessing leadership when considering transformational change.

Table 8. Testing He Waka Eke Noa as a case study against Kotters 'Eight Steps to Transforming Your Organisation'

Steps and leadership focus.	Description of what occurred.
Step 1. Establishing a sense of urgency.	<p><u>Sense of urgency for change:</u></p> <ul style="list-style-type: none"> • Alignment with the NZ Govt commitment in relation to the Paris Agreement. • Support farmers to measure, manage and reduce on-farm emissions. • Tight timeframes; in place by 2025. • New technology advancements. • GHGs will be important for future trade (reference to CBAM) • Scope 3 emissions for NZ trade partners. • Other countries have the ability to overtake New Zealand. • Technology changes for the reduction of CO₂. This has the ability to increase %'age of methane and farm emissions. <p><u>Point made by opposition to the change;</u></p> <ul style="list-style-type: none"> • Absence of belief in the science. • View that NZ Govt has over committed amount of GHG reductions. • New Zealand is currently one of the most efficient countries in the world CO_{2e}/Kg milk solids or Kg/meat production.
Step 2. Forming a powerful coalition.	<ul style="list-style-type: none"> • HWEN coming together to achieve alignment is challenging for all the partners to get consensus. • Levy bodies representing their farmers and growers have differing industry amounts at stake by virtue of their emissions profiles. • Some levy bodies perceive to have more power than others by virtue of the weight of their revenue. Therefore have the ability to cast influence. • Beef and Lamb had a remit at the 2023 AGM, and subsequent vote whether to remain in HWEN, which landed at close to 50/50. Confidence is not there. • Federated Farmers as a member organisation advocates on behalf of members wishes. Given our contentious GHGs have become, this must be challenging.
Step 3. Creating a vision.	<ul style="list-style-type: none"> • An HWEN vision has been created regarding a collective commitment to achieve change. • Acknowledgement that achieving change on the ground is a big challenge. • These challenges join others; water quality, biosecurity, biodiversity, animal welfare and financial viability.
Step 4. Communicating the vision.	<u>Not demonstrated to date</u>
Step 5. Empowering others to act on the vision.	<u>Not demonstrated to date</u>

Summary note to table 8.

Steps 1 and 2, are in place, but are not on strong foundations. The sense of urgency for change is met firmly with a polar opposite view.

Step 1, farmers and growers who are aligned with the 'sense of urgency for change' were challenged by the MFE/MPI/New Zealand Government response that on-farm sequestration might not count to off-set emissions (Ministry for the Environment and Ministry for Primary Industries, December 2022). While there are technical forces at play, what farmers heard was "if I plant small inefficient areas of my farm, that won't count against my emissions". One interviewee outlined this has had a damning influence on farmers confidence in the HWEN process. If this view is widely held. This contrasts Kissinger's position to 'have the people with you'.

Step 4 'communication of the vision' in the Kotters steps is where the process of HWEN currently stops. While the vision is clear at step 3, it lacks clarity for the farmers and growers in relation to what action they need to take. At the time of writing, government are yet to respond to HWEN reporting on Milestone 8 Emissions Pricing.

Where the leadership comes from;

- Industry levy bodies as partners of HWEN; Dairy NZ , Beef + Lamb NZ, Foundation of Arable Research (FAR), Horticulture NZ, Apiculture NZ, Deer Industry NZ
- Other organisations, also partners of HWEN; Dcanz, Federation of Maori Authority (FOMA), Federated Farmers, Irrigation NZ, Meat Industry Association, Ministry for Primary Industries (MPI) and Ministry for the Environment (MFE)
- Climate Change Commission
- NZ Agriculture Greenhouse Gas Research Centre – leading science partnerships,
- Ag Matters
- IPCC, Intergovernmental Panel on Climate Change
- MPI and MFE
- Simon Upton, Parliamentary Commissioner for the Environment

What has influenced farmers receptiveness to leadership and strategy;

- Carbon farming, hiking the prices of neighbouring land, out of reach and unattainable.
- Absence of understanding of on farm and business challenges. Ironically, climate effects of the 2022 spring and 2022/23 summer and autumn, interest rates and returns \$/kg lamb.

Other forces at play;

- Anti-establishment sentiment
- A closely held position, with confirmation bias, which is hard to deviate from.
- Groundswell New Zealand and disruption

These case studies present main idea that human behaviour is central to the success of achieving transformational change. Of the three case studies considered, only the Land and Water Forum made meaningful advancement, when aligning to the Kotters model. Under this collaborative leadership model and a significant amount of time

invested in the process. In each of the case studies, significant periods of time were afforded to those in leadership positions to achieve change, but that time was either lost by not making any meaningful leadership progress as with climate change, or spent focussing in the wrong areas such as Muldoon era.

Section 7: Findings and discussion

The literature review undertaken for this paper set out key leadership frameworks and provided insight into human behaviour, and how these are influential in the success of transformational change. These were confirmed through the interviews and case studies undertaken by the author. The key findings are summarised below;

- Time is an important factor when undertaking transformational change. A planned and sequential process for change as outlined by Kotter has better outcomes than change which is rushed with little time for consultation and coalition and without sufficient notice or time for those who are required to make changes, to do what is necessary to implement/embed the change.
- Multiple changes occurring all at the same time, can lead to people refuting or challenging all of the changes proposed in a blanket manner.
- Human behaviour is an important factor to consider when undertaking transformational change and will impact on successful implementation. When those affected by change, do not understand, or 'believe in' the reason for the change, this can quickly detract from what is proposed.
- Leadership is a tenuous line to walk. This was summarised by Kissinger when explaining that decisions need to be made with scarcity of information. By the time all the information is available, it is too late to make the leadership decisions required to lead out change (you are in Horizon 3 of the McKinsey model at that stage).
- Without united urgency for the change early on in the process (at step 1), people risk getting left behind. By virtue of what leadership is, 'taking people on the journey', this significantly undermines achieving the objective.
- Time is an important component of achieving transformational change; needing to allow enough time, but equally not take so long that you 'lose the room'.
- Consensus and agreement from the outset is the important foundation to take a change forward successfully.
- The New Zealand levy bodies and member organisations play an important role with primary industry, but enabling significant change within the industry is challenging. These challenges are compounded by the current structure of 'voted-on' positions – which make challenging the status quo and leading transformational change difficult.
- Border trade adjustments are under way via CBAM in sectors other than agriculture. There is a significant opportunity for countries to establish these within agricultural trade.
- Customers of New Zealand such as Nestle have openly conveyed their timebound expectations for change.
- Transformational change is necessary and we must find ways to lead industry through it, and avoid being left behind nationally and globally.

Conclusion:

The purpose of this project was to explore and understand how leadership can support the primary industry to navigate change. The paper challenges those in leadership roles to improve the way change is led and undertaken within primary industry, but to also support leaders through insights and recommendations.

The research illustrates that in order to implement any change, or transformational change, there must be sufficient time to lead and implement a change in direction. There is already a need for change upon us through legislation or environmental or market needs (those drivers increasingly interlinked). Efforts need to be made to plan for these changes now. This will involve key stakeholders working together more collaboratively, given the shared issues confronting the primary industry. Other changes are less obvious, and far ahead of us in Horizon 3. Leaders should not ignore the early signals of change, and approach the need to adapt or pivot to an approach with an open mindset. Decisions need to be made, often on limited or scarce information, while carefully understanding the intricacies of the system within which industry is operating. At all times, there is a need to take primary industry 'on the journey' through clear and open communication. Therefore it is important to consider what farmers and growers are seeking in terms of leadership.

The identified leadership frameworks have shown us the importance of establishing the 'sense of urgency'. Simply put, this is understanding 'the why'. The next step is then to form a coalition, to address the urgent matter. In forming a coalition it is essential that you have the people with you. Leading, without taking the people on the journey is essentially management. Management without hierarchy makes very little or no progress on any matters of urgency successfully.

This report places a significant level of importance on anticipating and reacting to future challenges when in Horizon 1. This involves making decisions and forming strategies to address future problems or issues. Waiting until Horizon 2, or Horizon 3, to make decisions or form strategies shortens the timeframes to react. This will make the Kotters early steps; 1, 2, 3 and 4 hard to achieve.

Recommendations

Recommendations include the need to encourage, facilitate and empower industry leaders and levy bodies to start working together more frequently, and on matters less contentious than current emissions targets. Industry groups should be working across a spectrum of matters, breaking down barriers (real and perceived), finding collective goals, and sharing ideas and resources. A template framework would assist in achieving this essential change in approach, with governance and accountability to monitor the progress. Communication with industry members and stakeholders (the people being led) is crucial to ensure buy-in is achieved throughout the change.

The following recommendations are made:

1. The chair of the Board's for Beef + Lamb New Zealand and Dairy NZ to conduct a review of their Director's appetite to support other organisations who are leading change on climate emissions reductions jointly with Ministry for Primary Industries.
2. All of the primary industry levy bodies to implement a change framework, be transparent about what it is, and have accountability to achieve milestones, within a stepped process.
3. The Ministry for Primary Industries, in collaboration with levy bodies to survey farmers about what farmers and growers seek in terms of leadership enabling a foundation for opinions to be heard

References

- (2023, April 22). Retrieved from Motu.nz: <https://www.motu.nz/our-research/environment-and-resources/emission-mitigation/shaping-new-zealands-low-emissions-future/major-milestones-of-the-new-zealand-emissions-trading-scheme/>
- (2023, June 5). Retrieved from The Leadership Circle: <https://leadershipcircle.com/>
- A Common Direction for Water Management in New Zealand*. (2023, June 3). Retrieved from The Land and Water Forum: http://www.landandwater.org.nz/Site/About_Us/default.aspx
- Baines, J., & O'Brien, M. (2012). *Reflections on the Collaborative Governance Process of the Land and Water Forum*. Ministry for the Environment.
- Boshier, J. (2022). *Power Surge*. Sydney: New Holland.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 77-101.
- Braun, V., & Clarke, V. (2012). Thematic Analysis. *APA Handbooks in Psychology Series*, 57-71.
- Carnegie, D. (2009). *How to Win Friends and Influence People*. New York: Simon and Schuster.
- Eppel, E. (2013). Collaborative Governance Case Studies: The Land and Water Forum. *Institute for Governance and Policy Studies working paper NO: 13/05*, 2-3.
- Gustafson, B. (2000). *His Way: A Biography of Robert Muldoon*. Auckland: Auckland University Press.
- Harvard Business Review. (2011). HBRs 10 Must Reads on Change Management. In J. Kotter, *Leading Change Why Transformational Efforts Fail* (pp. 1-16). Harvard Business School Publishing Corporation.
- He Waka Eke Noa*. (2023, July 2). Retrieved from He Waka Eke Noa: <https://hewakaekenoa.nz/>
- Hocken, M. (2017). *The Innovative Farmer*. Nuffield Scholar.
- Kegan, R., & Lahey, L. L. (2011). The Real Reason People Won't Change. In *HBRs 10 Must Reads On Change Management* (pp. 119-1336). Boston: Harvard Business School Publishing Corporation.
- Kissinger, H. (2022). *Leadership Six Studies in World Strategy*. Penguin Publishing Group.
- Kotter, J. (2008). *A Sense of Urgency*. United States: Harvard Business School Publishing.
- Kotter, J. (2023, May 11). Retrieved from Harvard Business Review: <https://hbr.org/1995/05/leading-change-why-transformation-efforts-fail-2>
- Macfie, R. (2013). *Tragedy at Pike River Mine*. Wellington: Awa Press.
- MBIE. (2023, June 2). *Ministry of Business Innovation and Employment*. Retrieved from <https://www.mbie.govt.nz/business-and-employment/employment-and-skills/health-and-safety/responding-to-the-royal-commission-on-the-pike-river-coal-mine-tragedy/>: <https://www.mbie.govt.nz/business-and-employment/employment-and-skills/health-and-safety/responding-to-the-royal-commission-on-the-pike-river-coal-mine-tragedy/>

- McKinsey & Company. (2023, July 15). Retrieved from McKinsey.com:
<https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/enduring-ideas-the-three-horizons-of-growth>
- Meat Industry Association. (2023, May 20). *Meat Industry Association*. Retrieved from Meat Industry Association: <https://www.mia.co.nz/news-and-views/new/#:~:text=Beef%20%2B%20Lamb%20New%20Zealand%20and%20the%20Meat,to%20every%20Member%20of%20Parliament%20and%20relevant%20officials.>
- Michael Reddell and Cath Steelman, '. (n.d.).
- Ministry for the Environment - climate change*. (2023, May 25). Retrieved from Ministry for the Environment: <https://environment.govt.nz/what-government-is-doing/areas-of-work/climate-change/about-new-zealands-climate-change-programme/#reducing-emissions-from-agriculture>
- Ministry for the Environment and Ministry for Primary Industries. (December 2022). *Pricing agricultural emissions; Report under section 215 of the Climate Change Response Act 2002*. Wellington: Ministry for the Environment.
- Ministry of Primary Industries. (December 2022). *Situation and Outlook for Primary Industries*. Wellington: Ministry for Primary Industries, Economic Intelligence Unit.
- Nestle. (2023, March). *Nestle's Net Zero Roadmap*. Retrieved from Nestle: <https://www.nestle.com/sustainability/climate-change/zero-environmental-impact>
- OECD. (2017). *Environmental Performance Reviews: New Zealand 2017*. Paris: OECD Publishing.
- RBNZ. (1983, March). *New Zealand Public Debt; Reserve Bank of New Zealand Bulletin; Vol 46*. Retrieved from https://www.rbnz.govt.nz/-/media/4da9a6161c5c487bb72ffd60eb07dc4b.ashx?sc_lang=en
- Reganold, J. P., Papendick, R. I., & Parr, J. F. (1990). Sustainable Agriculture. *Scientific American*, 112-121.
- Renwick, A., Dynes, R., Johnstone, P., King, W., Holt, L., & Penelope, J. (2022). Balancing the push and pull factors of land-use change; a New Zealand case study. *Regional Environmental Change*.
- Sleeman, M. R. (2008, June). 'Some perspectives on past recessions'. RBNZ Bulletin, Vol 71, No 2, p11.
- The Land and Water Forum. (2012). *Third Report of the Land and Water Forum: Managing Water Quality and Allocating Water*.
- Thomas, M. &. (2023, April 23). *Great Policy Successes*. Retrieved from Oxford Academic: <https://academic.oup.com/book/42635/chapter/358102982>
- Transformational Change. (2023, May 20). *Transformational Change*. Retrieved from Academy to Innovate: <https://www.aihr.com/hr-glossary/transformational-change/#:~:text=Transformational%20change%20is%20a%20type,to%20significant%20improvements%20in%20performance.>
- Trends, M. (2023, May 13). *Macro Trends*. Retrieved from <https://www.macrotrends.net/countries/NZL/new-zealand/inflation-rate-cpi>

- UK Parliament. (2023, May 13). Retrieved from UK Parliament:
<https://www.parliament.uk/about/living-heritage/evolutionofparliament/legislativescrutiny/parliament-and-europe/overview/britain-and-eec-to-single-european-act/>
- Wallace, N. (2014). *When the Farm Gates Opened*. In N. Wallace. Wellington: Rachel Scott.
- Wikipedia. (2023, May 25). *Wikipedia Climate*. Retrieved from Change Rresponse Act 2002:
https://en.wikipedia.org/wiki/Climate_Change_Response_Act_2002
- World Bank. (2023, June 8). *World Bank Population data*. Retrieved from WorldBank:
<https://data.worldbank.org/indicator/SP.POP.TOTL>
- World Economic Forum. (2023, June 3). *CBAM; What you need to know about the new EU decarbonization incentive*. Retrieved from World Economic Forum:
<https://www.weforum.org/agenda/2022/12/cbam-the-new-eu-decarbonization-incentive-and-what-you-need-to-know/>
- Worley, T. G., & Cumings, C. G. (2009). *Organization Development and Change*. California: South-Western College.

Appendix

Appendix 1: Semi structured interview questions

- 1) Can you give me your opinion of examples where leadership has been displayed well?

(either/or)
 - a) At specific or individual levels
 - b) Organisational level

- 2) Can you give me examples of where leadership has not been displayed well with industry issues?

- 3) A) Can you please give me your opinion of where examples of where industry coalition/collaboration has worked well?

B) Why you think that might have worked or not worked well?

C) How did that contribute to industry leadership?

- 4) A) Within the Agriculture sector, do you feel that that there is an element of public discourse or division away from the leadership directives (on industry issues)?

B) Why?

- 5) If we conclude that leadership in NZ agriculture could be better, what might better look like?

- 6) What do you think might be the circuit breaker to instigate change?

Appendix 2: Mind map of interview responses

