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Non-Financial Reporting: Generating Value and Improving Sustainability from Non-Financial Farm Information

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Executive Summary

Background

The New Zealand agriculture industry is being challenged to prove food and fibre is produced in a way that is considered sustainable by their export markets and local community. This is leading them to question what sustainable production looks like and how they show this. Increasing levels of regulation also mean there is greater financial risk from non-compliance, and their stakeholders are asking them for more detailed non-financial information. Non-financial reporting (“NFR”) is a way to help businesses manage their non-financial risk areas, meet trade requirements, and communicate effectively with stakeholders.

Aims & Objectives

The research project aimed to understand how farmers are using NFR to generate more value in their business, and how they communicate their non-financial information to stakeholders, with the research question being: “How do farmers use non-financial information to measure sustainability performance and report to stakeholders?” This is important as farmers need to be able to generate value for their business and themselves from NFR, instead of it just being an additional cost and compliance obligation.

Methodology

The methodology comprises of a literature review to provide context around the changes in NFR and the requirements of the sector, farmers, and stakeholders. This aimed to provide a clearer understanding of what NFR is, why it is important for sustainable development and stakeholder relationships, and how it can be developed in a farming business. Qualitative, semi-structured interviews were used to obtain insights and findings from farmers and stakeholders concerning non-financial reporting outcomes and effectiveness, how sustainability was defined, and whether integrated reporting would be useful.

Key Findings

Analysis of the themes arising from the literature and interviews found:

- Non-financial information and reporting should be an important part of the business planning and strategy process, and integrating reporting with financial results can help to drive investment decisions.
- In managing their banking relationships, farmers should also look to show their financial understanding of environmental implications and their financial investment in environmental/social sustainability in their budgets and financial results.
- An important driver of sustainability is having good people employed on farm that understand how they contribute to farm sustainability.
- While farmers are adapting to compulsory measures of NFR for compliance, and some are going above and beyond compliance, others are struggling to understand what these numbers mean for their business.

Recommendations for Farmers

1. Identify what non-financial Key Performance Indicators (“KPIs”) are relevant to your business and use these as part of your business planning process to help ensure these are effective.
2. Engage support from your trusted advisory team to help you implement effective non-financial reporting.
3. Provide balanced NFR alongside financial reporting to shareholders and financiers to help provide whole-farm focus in discussions around results.

4. Engage with employees effectively as part of the sustainability process, to build a sustainable culture on-farm that will help generate desired results.
5. Drive farmer-led benchmarking to understand where you sit on the sustainability bell curve.
6. Understand the cost of being an early adopter, and target investment in sustainable actions gradually that will help to set up long-term business resilience.

Recommendations for Stakeholders

1. Engage early with farmers as part of the pre-audit process to gain buy-in and engagement for compliance requirements.
2. Build advisor capability to help farmers with the sustainability journey.
3. Use technology effectively and invest in systems that reduce time and input requirements for farmers to report on sustainability efforts.
4. Support early adopters of sustainable actions, through either financial assistance, industry recognition, or market premiums.

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Table of Contents

Executive Summary.....	ii
Acknowledgements.....	iv
Table of Contents.....	v
Abbreviations and Definitions.....	vii
1 Introduction.....	1
2 Aims and Objectives.....	2
3 Literature Review.....	3
3.1 Introduction.....	3
3.2 The What - Non-Financial Reporting.....	3
3.2.1 Overview.....	3
3.2.2 Advantages of NFR.....	4
3.2.3 Non-Financial Reporting for SMEs.....	5
3.2.4 Non-Financial Reporting in a New Zealand Agriculture Context.....	5
3.3 The Why - The Wider Environment.....	6
3.3.1 Overview.....	6
3.3.2 Stakeholders.....	6
3.3.3 Sector Requirements and Regulation.....	7
3.4 The How – Developing Non-Financial Reporting.....	9
3.4.1 Defining Sustainability.....	9
3.4.2 Non-Financial Reporting Framework.....	9
3.4.3 Characteristics of Non-Financial Information.....	10
3.4.4 Link to Financial Reporting.....	11
4 Methodology.....	12
4.1 Interviews and Thematic Analysis.....	12
4.2 Limitations of Research.....	12
5 Analysis and Results.....	13
5.1 Non-Financial Reporting.....	13
5.1.1 Key Themes.....	13
5.1.2 Current Forms of Non-Financial Reporting.....	15
5.1.3 Outcomes of Non-Financial Reporting.....	16
5.1.4 How can Non-Financial Reporting be More Effective?.....	16
5.1.5 Strengths and Weaknesses of Non-Financial Reporting.....	17
5.2 Sustainability.....	17
5.2.1 Key Themes.....	17
5.2.2 Definition of Sustainability.....	19
5.2.3 Cost of Sustainability.....	20
5.2.4 Local versus Market Requirements.....	21
5.2.5 Sustainable Outcomes.....	21
5.3 Reporting on Non-Financial Information.....	22

5.3.1	Key Themes.....	22
5.3.2	Integrated Reporting.....	22
5.3.3	Using Integrated Reporting for Investment.....	23
5.3.4	KPIs for Integrated Reporting.....	25
6	Findings and Discussion.....	27
6.1	Non-Financial Reporting.....	27
6.2	Industry Needs and Improvements.....	28
7	Conclusions.....	29
8	Recommendations.....	29
9	References.....	30
10	Appendices.....	34
10.1	Appendix One: Interview Questions for Farmers.....	34
10.2	Appendix Two: Questions for Stakeholders.....	35
10.3	Appendix Three: Question Tree.....	36

List of Tables and Figures

Table 1: Summary of Interview Participants by Type and Industry.....	12
Table 2: Summary of responses on whether non-financial reporting should be integrated with financial reporting.....	22

Figure 1: The Dynamics of Non-Financial Reporting - A Constant Evolution (Baret & Helfrich, 2019).....	4
Figure 2: Advantages of NFR and Sustainability Reporting Processes (Gheorghe, 2020).....	4
Figure 3: Stakeholder Considerations for Sustainability Reporting (GRI, 2020).....	6
Figure 4: Stakeholders for SMEs, adapted from (Spence, 2016).....	7
Figure 5: The Four Capitals as defined by Treasury (The Treasury, 2019).....	8
Figure 6: Pillars of Sustainable Development (New Zealand Avocado, 2023).....	9
Figure 7: Measurable Data used for Agricultural Systems Modelling, NZ (Vannier et al., 2022).....	10
Figure 8: Non-Financial Reporting Themes identified through Semi-Structure Interviews.....	14
Figure 9: Stakeholders as Identified by Farmers.....	15
Figure 10: Key Themes arising in Relation to Sustainability from Interviews.....	18
Figure 11: Key themes and responses related to the Integrated Reporting topic from interview results.....	22
Figure 12: Decision-Making Model for Investment (Adapted from Information Provided).....	24
Figure 13: KPIs to include in Integrated Reporting and used to assess Sustainability Performance.....	25

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Abbreviations and Definitions

Abbreviations or Term	Meaning
ESG	Environmental, Social, & Governance
Farmer	A person connected with the operations and/or ownership of the business, that is responsible for the overall performance of the farming business.
FTE	Full-time Equivalent Employee
GHG	Greenhouse Gases
IPCC	International Panel on Climate Change
KPIs	Key Performance Indicators
Mid-Large Size Farms	For this report, mid-large farms are broadly defined as the following: <ul style="list-style-type: none"> • Dairy farms with greater than 800+ cows • 10,000 SU + sheep and beef farms • Multiple owners • Significant bank funding.
NFR	Non-Financial Reporting
NZ FAP Plus	New Zealand Farm Assurance Program Plus
SMEs	Small & Medium Enterprises
Stakeholders	Close stakeholders: Defined as those with a financial interest in the business. Wider stakeholders: Defined as those who are connected to the business through the purchase/supply of products & services or connected to the land in some way – i.e., community.

1 Introduction

The business risk associated with non-financial forms of capital has brought into sharp focus the need to improve sustainability in New Zealand. The 2023 flooding events in the North Island have put the spotlight on the effects of climate change, with the weather impacting not only farmers but displacing many families from their homes. Consumers are wanting more information on where their food comes from and how it is produced, and globally Governments are increasing regulation on climate change related matters. In addition to this, business resilience has been tested by the ripple effects following Covid-19 and the impact of a tight labour market. Running efficient farming systems to minimise resource waste has also been important in the face of rapid cost inflation. Weather conditions, consumer demands, labour scarcity, and waste management are all examples of non-financial risk areas which can have a significant impact on the bottom line of farming businesses.

Non-financial reporting (“NFR”) is a way to help businesses manage their non-financial risk areas. Guided by the adage, “What you measure you can manage”, NFR could help to bring attention and management to these areas in a farming business, leading to improved business resilience. For example, a strategic focus on enhancing people management strategies can help to secure and retain good employees, who ultimately support the achievement of business goals.

While NFR is commonly thought of as the sustainability reporting that publicly listed companies release to manage stakeholders’ perceptions, it is not the only form of NFR. For farmers, this could include Freshwater Farm Plans, Supplier Assurance programmes, GHG levy reporting, Irrigation Company audits, and other forms of compliance where non-financial information is disclosed. Banks are now required to report on emissions and climate risks on their lending portfolios, meaning they will start to require more non-financial information from a farming business (Financial Markets Authority, 2023).

Non-compliance in NFR areas poses a significant financial risk to a farming business. Given the potential financial implications, stakeholders are increasingly demanding a whole-farm view for risk management. Mid-large size farms tend to have more stakeholders to report to, such as employees, non-family shareholders, and higher levels of bank finance. As a result, farming businesses are needing to provide more information on-farm sustainability actions and performance, with compliance requirements and regulations increasing.

This report investigates the current forms of NFR farmers are doing, how they are using these to improve sustainable outcomes in their businesses, and how they are communicating or working with stakeholders. Findings from this report will help farmers consider how they communicate outcomes to stakeholders and understand why they need to do so. It will provide farming businesses with some examples of what measures they can use, and to stakeholders, it will provide an understanding of how they can assist farmers to develop NFR.

In a broader context, this research aims to contribute to building awareness of the importance of ESG reporting methods for a farming business, and how value can be generated from engaging with NFR. It is intended to be applicable for those mid-large size farms, which don’t have the resources of a corporate farming group but want to improve their reporting to stakeholders or develop better reporting at their board level.

2 Aims and Objectives

The purpose of the research project was to understand how farmers can use NFR to generate more value for their business, and how they can communicate the results of sustainability performance to stakeholders, with the research question being:

How do farmers use non-financial information to measure sustainability performance and report to stakeholders?

With a focus on mid-large size farms, the objectives of this research project are to:

- Provide context around the drivers for change in NFR requirements.
- Understand the outcomes being generated from integrated farm plans and assurance programmes.
- Understand if and how farmers are currently reporting non-financial information to stakeholders.
- Investigate how NFR can be used alongside financial reporting to provide a whole-farm view of sustainability to stakeholders.

3 Literature Review

3.1 Introduction

The literature review provides the context for the study and a broad overview of key themes identified from the literature available related to NFR in the agriculture sector. A review of existing literature including research, industry reports, articles and opinion pieces was used to evaluate the context around the changes in NFR and the requirements of the sector, farmers, and stakeholders in relation to this.

Although there is a wide range of literature on NFR and farm environmental issues, there is less literature available on how farmers are creating and providing non-financial information to stakeholders. This literature review aims to provide a clearer understanding of what NFR is, why it is important for sustainable development and stakeholder relationships, and how it can be developed in a farming business.

The first section of the literature review covers what NFR is, its characteristics, and what it looks like in a New Zealand agriculture context. The second section of the literature review considers the wider environment driving NFR, stakeholder relationships, and the link to financial reporting. The third section considers how NFR can be developed for a farming business.

3.2 The What - Non-Financial Reporting

3.2.1 Overview

NFR is defined as disclosing information that gives stakeholders an understanding of the essential areas of value creation in the business, which goes beyond financial information (Bourgoin, 2016). It is often referred to as Environmental, Social, and Governance (ESG Reporting), or Sustainability Reporting (Deloitte, 2021). A non-financial report provides information about the economic, environmental, social, and governance performance of a business, and is the practice of measuring, disclosing, and being accountable to internal and external stakeholders for the organisation's ability to manage impacts on society (Krawczyk, 2021; Flower, 2015).

Traditional financial reporting frameworks limit the ability of businesses to demonstrate value and impact beyond financial perspectives and are largely focused on the financial value the business creates (XRB, 2022). It is also argued that the traditional financial reporting model does not adequately meet stakeholder information needs to assess the future performance of a business (Flower, 2015). This is due to financial statements focusing on accounting for and reporting on past events, which is considered a significant limitation by many users of financial reports (Krawczyk, 2021).

The NFR environment is constantly evolving as scientific knowledge improves and the development of information networks accelerates the identification of unsustainable activities. The Intergovernmental Panel on Climate Change ("IPCC") and other experts have raised awareness of the negative impact of human activities on the environment and social capital, and Non-Government Organisations have also played a role by informing businesses about the effects of their activities, ranging from impacts on the environment to the impact of supply chains (Baret & Helfrich, 2019). As awareness has risen about the impact businesses are having on sustainability, this has resulted in a profusion of new regulations and reporting requirements worldwide, resulting in a constantly changing reporting environment (Baret & Helfrich, 2019). NFR is also increasingly seen as a responsible business practice, and there is growing momentum for NFR in the private sector (Meech & Bayliss, 2021).

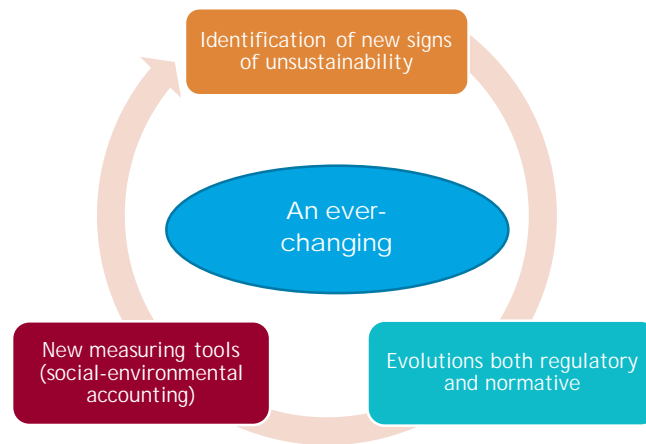


Figure 1: The Dynamics of Non-Financial Reporting - A Constant Evolution (Baret & Helfrich, 2019)

3.2.2 Advantages of NFR

A NFR framework can provide a variety of advantages to a farming business and its stakeholders. The New Zealand External Reporting Board ("XRB"), outlines the benefits of reporting non-financial information as:

- Increased trust and transparency
- Better information for decision-making and/or allocating resources.
- Attracting investment
- Maintaining a social license to operate (XRB, 2022)

A study by Gheorghe, 2020, identified nine advantages of NFR that can be linked to some of the reporting that farmers and growers prepare in New Zealand under current and future regulations.



Figure 2: Advantages of NFR and Sustainability Reporting Processes (Gheorghe, 2020)

3.2.3 Non-Financial Reporting for SMEs

The topic of NFR has been widely studied and discussed in recent years in the context of large business entities but rarely applied to small and medium enterprises (“SMEs”) (Krawczyk, 2021). A review of the literature available found that there is an argument that NFR standards should be developed for SMEs, given they are a major part of the global economy (Krawczyk, 2021). SMEs are important contributors to job creation and economic development, representing about 90% of businesses and more than 50% of employment worldwide (The World Bank, n.d.). In New Zealand, the food and fibre sector accounted for 10.7% of GDP in the year to 31 March 2021 and contributed to 13% of employment (Ministry for Primary Industries, 2022). An SME in New Zealand is defined by the business community and government as having 0-49 FTE employees (Small Business Council NZ, 2019). With the average Canterbury dairy farm employing 4-5 staff for an 800-cow herd (DairyNZ, 2022), it could be concluded most farms fit within the SME category.

SMEs have different motivations and pressures influencing them to engage with NFR than large entities, and therefore a non-financial report requires adaption to the size of the entity (Krawczyk, 2021; Cantele, et. al., 2020). Some of the characteristics of SMEs are that they are actively managed by owners, have simpler management schemes, limited financial and human resources, and have stronger social relations (Dangelico et al., 2019). Preparation of non-financial information typically requires a larger proportionate investment of time, finances, and energy (Cantele et al., 2020). As a result, consideration should be given as to how a NFR framework applies to a farming business.

3.2.4 Non-Financial Reporting in a New Zealand Agriculture Context

Due to most New Zealand farming businesses not being of a public entity size, reporting on non-financial factors is not required (XRB, 2022). However, the agriculture sector has been facing significant scrutiny and increasing levels of regulation, with the environmental impacts of food production becoming more important to consumers in the face of climate change (Fonterra, 2018). Studies have documented a need for consistent reporting on management actions to improve environmental outcomes, and national guidelines for environmental reporting and recording (Doehring et al., 2020). These findings are consistent with the proposal to build common data standards so farm information can be shared (Ministry for Primary Industries, 2022), and the development of a proposed National Register of Land Management Actions in New Zealand (Doehring et al., 2022).

Farmers are increasingly adapting to reporting non-financial information to wider stakeholders such as Councils, Processors, Banks, and Catchment Groups. Some assurance programmes developed by processors and marketing companies are also starting to look above and beyond environmental measures. For example, the NZ FAP Plus programme is designed to demonstrate to customers and consumers the sustainable and ethical practices in the red meat and wool sector. It involves standards for people, farms and natural resources, and biosecurity (NZ FAP, 2021). Similarly, the NZ Merino Company has developed ZQ RX, an assurance programme designed to meet consumer demand. This programme helps farmers to continuously improve human, animal, and environmental outcomes against key indicators (NZ Merino, n.d.). These programmes are typically voluntary but are aimed at helping to ensure New Zealand farmers retain their social license to operate, access global markets, or achieve premiums (NZ FAP, 2021).

3.3 The Why - The Wider Environment

3.3.1 Overview

There are many causes for the increased focus on NFR. Unlike financial reporting, which is typically only given to investors and financiers, NFR is provided to a range of stakeholders. One study linked the development of NFR to a vocalized demand from users of reports to “report the future, and an increasing interest in non-financial data and its reporting” (Krawczyk, 2021), while another noted that since the latest financial crisis and the evolution of the world economy, companies have become more transparent and accountable to stakeholders to maintain trust which is critical for maintaining investment (Stefanescu et al., 2021). Much of the strategic value for businesses in sustainability reporting comes from continuously communicating with stakeholders (GRI, 2020).

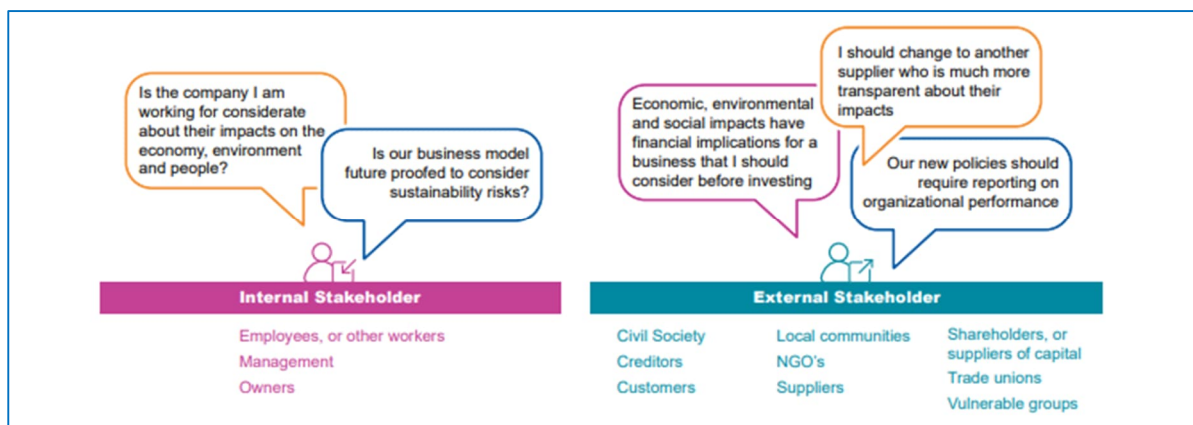


Figure 3: Stakeholder Considerations for Sustainability Reporting (GRI, 2020)

3.3.2 Stakeholders

A review of the literature found that a common theoretical perspective influencing ESG reporting literature is stakeholder theory, and this theoretical construct can help explain why a company may report its sustainability activity (Deegan & Blomquist, 2006; Russo & Perrini, 2010). Under stakeholder theory, a stakeholder is defined as “any group or individual who can affect or is affected by the achievement of an organisation's objectives” (Freeman, 2010). Stakeholders can vary according to organisations, and according to the company's context of reference over time (Russo & Perrini, 2010; Spence, 2016). As a guide, stakeholders can be categorised into three major groups:

1. External stakeholders: governments, suppliers, competitors, and customers
2. Internal stakeholders: board of directors, employees, management
3. Shareholders: all individuals or firms who are investing in shares and other securities of the firm, financiers (Buallay, 2022)

While it is intended to apply to any organisation, a review of the literature found that the generic version of stakeholder theory is not always transferable to SMEs. First, there is likely to be a greater emphasis on family and stakeholders led by personal relationships than in large firms, and they may be actively managed by the owners (Spence, 2016; Russo & Perrini, 2010). Secondly, employees can be regarded as a foremost stakeholder with owners relying on them more due to the direct reporting relationship (Huang et al., 2014). Therefore, when considering “generic” stakeholders in SMEs, there is more of an emphasis on family and stakeholders led by personal relationships than for large firms (Huang et al., 2014), which can change the reporting focus.

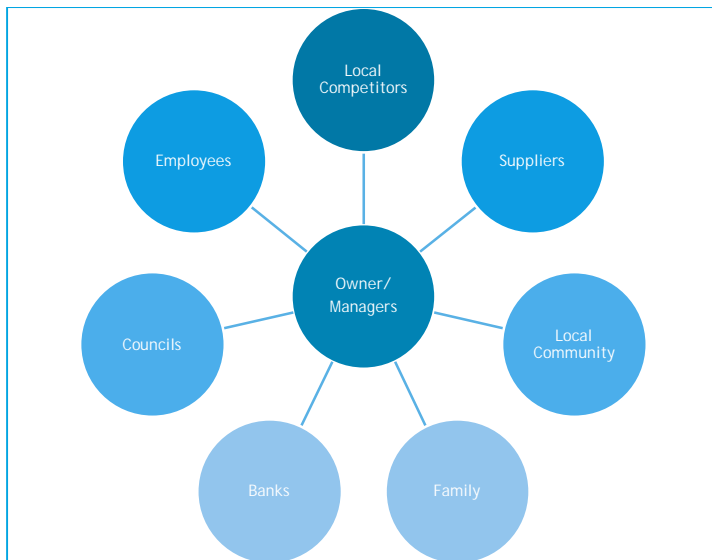


Figure 4: Stakeholders for SMEs, adapted from (Spence, 2016)

3.3.3 Sector Requirements and Regulation

The Government has recognised an industry need to provide assurance of good practice to consumers and keep the reputation of New Zealand’s food and fibre industry (Ministry for Primary Industries, 2022). This is important as the food and fibre sector is a core part of the New Zealand economy, with exports worth \$53 billion making up 81.4% of New Zealand’s total goods exports in the year to 31 June 2022 (Ministry for Primary Industries, 2022). With a goal of adding \$44 billion in export earnings by 2023, New Zealand food producers are being challenged on how to do this while proving their products are backed by strong environmental and social credentials (Ministry for Primary Industries, 2022). One outcome that is being implemented as a result is that an Integrated Farm Planning system is being developed, and while this is not currently considered a regulatory tool, it aims to provide a framework to incorporate regulated requirements into a wider farm planning process (Ministry for Primary Industries, 2022).

There is a global focus on climate change, and one example is a report from the IPCC which states that human-caused climate change is affecting weather and climate extremes in every region across the globe, leading to widespread adverse impacts (IPCC, 2023). Governments in developed countries are responding by implementing legislation to help fight climate change. For example, the European Union has agreed to the world’s first Carbon Border Adjustment Mechanism, a tariff aimed at preventing “carbon leakage”, which also aims to incentivise trading partners to decarbonise as much as possible (Monkelbaan & Figures, 2022). As a result, agricultural trade barriers are starting to change with requirements to meet environmental and social standards being factored in. The World Trade Organisation provides a framework for trade and investment rules and has measures in place to prevent disguised restrictions on trade (US Environmental Protection Agency, 2023). However, there is an exception for measures aimed at protecting health, environmental, enforcement, or conservation measures, meaning that countries are using these to promote sustainable development (US Environmental Protection Agency, 2023).

A key starting point for the increased environmental regulation in the agriculture sector concerning emissions was the entry by the New Zealand Government in 2015 into the Paris Agreement along with 195 other parties around the world. This resulted in an agreement to reduce New Zealand’s Nationally Determined Contribution, by 30% below 2005 levels by 2030 (Ministry for the Environment, 2020). Two key purposes of the Paris Agreement were to:

- Pursue efforts to limit the temperature increase globally to 1.5 degrees Celsius.
- Strengthen the ability of countries to deal with the impacts of climate change (Ministry for the Environment, 2020)

Further policy changes have been introduced by the New Zealand Government as a result to reflect the need to manage the impacts of climate change, these being the:

- The Zero Carbon Amendment Act (2019)
- The National Policy Statement for Freshwater Management (2020)
- Financial Sector (Climate-related Disclosure and Other Matters) Amendment Bill which requires large organisations to publicly report on climate matters (XRB, 2022)

Another driver for regulation change is the framework by which the New Zealand Government makes policy decisions. Traditionally, economic capital has been focused on the factors of production such as land and assets that are used to create goods and services (Makhlouf, 2018). However, in 2018 the Treasury released the Living Standards Framework, which defined four capitals – human, social, natural, and financial/physical as the assets to generate future well-being. This shift in policy has provided a new framework to guide policy decisions in Treasury’s role as the lead economic and financial advisor to Government (The Treasury, 2022). Given these four capitals are seen as critical assets for long-term sustainability, a business will not have long-term viability if it does not consider them (Eastman, 2018)



Figure 5: The Four Capitals as defined by Treasury (The Treasury, 2019)

3.4 The How – Developing Non-Financial Reporting

3.4.1 Defining Sustainability

If NFR is used to drive sustainable development, then it is important to first define what “sustainability” means for a farming business. The term “sustainability” is broad, multidisciplinary, and interpreted in many ways by scholars, businesses, society, and governments. The Brundtland Commission in 1987 defined “sustainability” as “meeting the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations, 1987), and this term has been widely adopted as the basis for sustainable development. Corporate sustainability provides a frame of reference for organisations to think beyond their shareholders and work with stakeholders concerning their impact on environmental protection, economic development, and social equality (Linneberg et al., 2019). To summarise, sustainability is the result of understanding and integrating three aspects: economic, environmental, and social, and only by preserving sustainability, is the further economic development of the world possible (Krawczyk, 2021; Emas, 2015).



Figure 6: Pillars of Sustainable Development (New Zealand Avocado, 2023)

In relation to agriculture, a sustainable farm can be defined as one that produces adequate yields of high-quality product, be profitable, protect the environment, conserve resources, and be socially responsible in the long term (Reganold et al., 2006). Vannier et al., (2022) defined sustainability as agricultural production under a goal-orientated framework, focusing on sustainable water use and agricultural practices in relation to GHG emissions. Resilience is linked to sustainability and profitability, which is understood to mean that regardless of disruptions, a certain level of agricultural production each year can be achieved (Vannier et al., 2022).

3.4.2 Non-Financial Reporting Framework

Just as financial reporting has set standards which ensure consistency and comparability between businesses, it is important to develop NFR in line with a framework. A NFR framework guides reporting entities on how to effectively communicate their non-financial information to stakeholders (Bourgoin, 2016). They also help entities to set goals and manage change more effectively (GRI, 2020). For example, the Global Reporting Initiative (“GRI”) is an independent organisation that provides GRI sustainability reporting standards as a reporting framework designed for universal application to all organisations (GRI, 2023).

In New Zealand, the XRB is working on a voluntary, non-financial reporting framework from a New Zealand perspective, with initial testing scheduled for mid-2023. They are aiming for this reporting framework to provide all entities with a consistent and comparable way of reporting non-financial matters (XRB, 2022). Key aspects of this framework include the ability to articulate the impact they are having on:

- People and their wellbeing
- Land and the natural environment
- Intergenerational outcomes (XRB, 2022)

3.4.3 Characteristics of Non-Financial Information

With a wide variety of ways to measure information these days, how should businesses select indicators that give credible information in NFR? A paper reviewing agri-environmental indicators (“AEIs”) found that effective AEIs should be quantifiable and scientifically sound, relevant, acceptable to target groups, easy to interpret and cost-effective (Langeveld et al., 2007). They should enhance management by facilitating the definition of goals, design of systems, evaluation, and improving communication (Langeveld et al., 2007). A review of 12 indicator-based methods for evaluating farm systems also concluded that indicators preferably should be:

1. Based on farm practices rather than on environmental effects
2. Be expressed as values rather than scores (per unit of surface as well as per unit of product etc)
3. Be science-based (Van der Werf & Petit, 2002)

Similarly, a study on water policy evaluation also suggested that indicators should:

- Correlate to inputs and outputs of land use activities.
- Be sensitive to changes in climate and management.
- Integrate physical, chemical, and biological properties and processes.
- Be easy to use, cost-effective, and easy to interpret.
- Be policy relevant (Zalidis et al., 2004)

Vannier et al., (2022) developed a linear statistical model to represent the whole agricultural system of New Zealand at a national scale, which is claimed to be the first of its kind and is designed to build disruptive scenarios and explore pathways to reach carbon neutrality by 2050. While the purpose of this paper is not to explain or critique the model, it was a useful example of how some of the key measurable inputs and outputs could be quantified.

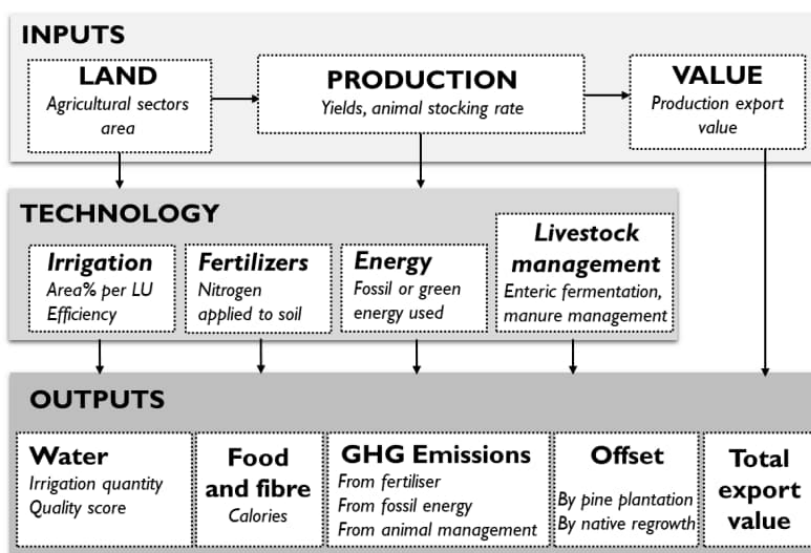


Figure 7: Measurable Data used for Agricultural Systems Modelling, NZ (Vannier et al., 2022)

To be effective, NFR must be credible to information users and provide context to business operations. A review of the literature found that the key characteristics of NFR include being relevant, consistent, comparable, reliable, and truthful, and assurance must be provided on this to give stakeholders confidence in the information presented (Aureli et al., 2019; Muller et

al., 2015; Grewal et al., 2018). While assurance increases the quality of NFR by providing credibility to users, the process of information verification is costly, both in time and effort (Grewal et al., 2018). Regardless, businesses have reported that assurance of NFR is an essential aspect in giving stakeholders greater confidence in the information reported (KPMG, 2017). Although indicators are relevant to monitor sustainability performance, users should always bear in mind that indicators are simplifications of complex and variable systems, and just like financial indicators, context is often required to explain results (de Olde et al., 2017).

Before choosing measures to report on, it is important to consider the purpose of the metrics. Edmans (2020), writes that companies should ignore the noise created by frameworks and stakeholder relationships, and instead focus on what are the attributes that they want to monitor because they are “measures that drive performance”. This is essential if NFR is to move from a compliance exercise to a value-creation tool (Edmans, 2022). Supporting this, a study on choosing sustainability indicators in agricultural systems suggested that the selection of indicators should be a process all stakeholders affected are involved in and that the process of choosing the indicators would be an important determinant of their success (de Olde et al., 2017). The study also found that self-monitoring of indicators was important for changing the orientations and actions of participants, and the process for choosing indicators and sustainability assessment tools may be a more important determinant of their success (de Olde et al., 2017).

3.4.4 Link to Financial Reporting

The generation of future cashflows is important to ensure continued investment into the operations of the business. While cashflows are financial and are often forecasted based on past performance, the size and timing of future cashflows depend on many other factors, for which non-financial factors become increasingly important (Eastman, 2018). As Eastman writes, the future financial performance of a business will depend on the company’s reputation and management’s ability to identify opportunities and challenges and respond appropriately – or to pivot as required (Eastman, 2018). While this argument was given in the context of large companies, it could be considered that this is equally applicable to New Zealand agribusinesses.

The financial information and key performance indicators provided from the completion of annual financial reports or management reporting from business help management and close stakeholders to measure performance, and this is essential for making sound decisions to achieve long-term business success (Gheorghe, 2020). However, financial information can lack the ability to depict the value of intangibles and places more focus on short-term and past performance (Raimo et al., 2020). It is argued that there is an increasing need for annual reporting to include both financial and non-financial indicators containing value-generating factors for financial performance (Gheorghe, 2020).

4 Methodology

4.1 Interviews and Thematic Analysis

A range of opinions and perspectives were gathered through the process of conducting semi-structured interviews with a small sample group of farmers and stakeholders which gathered data on a qualitative basis, using the questions as provided in Appendix One and Two. These questions were structured to first understand what non-financial forms of reporting are being done, and how effective they were in generating outcomes. Second, it was deemed important to understand what sustainability meant and how it was assessed. Third, questions were asked regarding integrated reporting and how that could generate value for farmers and stakeholders.

Interviews were then analysed using thematic analysis, which is a method for identifying, analysing, and reporting patterns within data (Braun & Clarke, 2006). While the data was collected from a series of interview questions, the themes outlined in the report are not necessarily driven by the specific questions. Following the thematic analysis process, mind maps have been developed to show the high-level themes arising from the interviews (refer to Figures 8, 10, 11, & 13).

A total of 18 people were interviewed through 16 semi-structured interviews, as summarised in Table 1. Anonymity has been preserved by referring to each farmer or stakeholder by a generic classification (e.g., Farmer). Interviews were conducted either via Microsoft Teams or in-person which took approximately one hour each. Interviewees were given an overall introduction to the topic and key definitions, then were asked a range of questions regarding the topic.

Table 1: Summary of Interview Participants by Type and Industry

Summary of Interviews	Corporate	Family	Total
Farmers			
Dairy			
CEO/Business Manager/CFO/Owner	2	3	5
Sheep & Beef			
Owners		2	2
CEO/Business Manager	1	1	2
Total Farmers Interviewed	3	6	9
Stakeholders			
Agribusiness Consultant			1
Bank*			4
Chartered Accountant			1
Environmental Consultant			1
Farm Consultant			1
Marketing Company			1
Total Stakeholders			9
Total Interview Participants			18

*Three separate individuals from within one bank were present for the interview.

4.2 Limitations of Research

This project is limited in that it does not provide an in-depth analysis of NFR and the different types of assurance programmes given research time constraints. Due to the nature of qualitative interviews, interview results are limited to the experience and knowledge of the interviewees.

Given the report length constraints, the findings attempt to highlight the interesting or insightful comments made. While these findings are indicative only given the qualitative sample size, they provided valuable insight into how farmers are using NFR and reporting to stakeholders currently. Where comments from participants have been included, these have been refined to improve readability in the report and therefore are not quoted verbatim.

Interviewees were also chosen based on being leaders in the industry, so the views put forward are not representative of the whole industry. Stakeholders interviewed are also not necessarily representative of all stakeholders that farmers engage with, and it should be noted that wider shareholders in a corporate structure business were not interviewed which could have provided a different perspective.

This project is also limited in that it primarily considers NFR from the perspective of sheep and beef farms and dairy farms. However, information in this report may apply to other farm types in certain contexts.

5 Analysis and Results

5.1 Non-Financial Reporting

5.1.1 Key Themes

Farmer participants were asked a series of questions to investigate what the current forms of NFR that they did in their business were, how they found the process, and what outcomes were being generated. On the other side, stakeholders were asked to share what changes they had seen being made to farm management practices since higher levels of compliance and non-financial reporting had come in over the last five years, and what non-financial information they required from farmers. Figure 8 on the following page outlines the key themes identified under non-financial reporting.

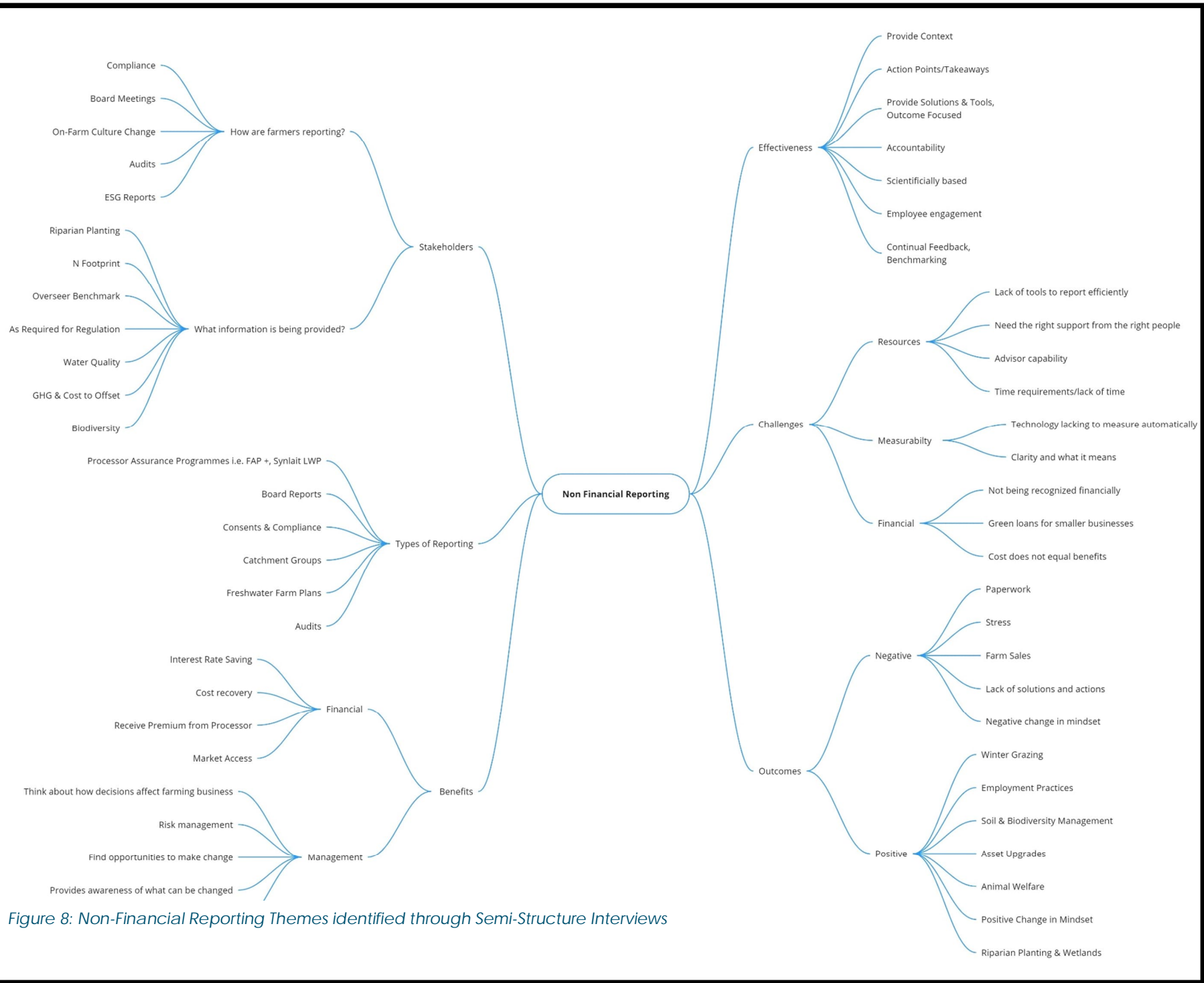


Figure 8: Non-Financial Reporting Themes identified through Semi-Structure Interviews

5.1.2 Current Forms of Non-Financial Reporting

Many farmers interviewed were within the Environment Canterbury region, and as a result, they were required to have Farm Environment Plans and comply with Irrigation audits if using irrigation. Dairy farmers were involved with either the Synlait Lead with Pride (“LWP”) programme or the Fonterra Co-operative Difference programme. Sheep and beef farmers were at a minimum complying with their processor’s assurance programmes, and one was currently in the process of entering into the NZ FAP Plus certification scheme. Three out of six family farms had formal governance processes in place, reporting to an advisory board. The corporate farms were either providing sustainability information or ESG reporting to their shareholders.

Figure 9 highlights the stakeholders considered by farmers. These have been loosely categorised into tiers based on the order given by interviewees.



Figure 9: Stakeholders as Identified by Farmers

In terms of help or support, many businesses not of a large enough scale to hire an environmental manager were using external support provided through either farm consultants, irrigation companies, or fertiliser companies. Having templates to work with was also highlighted as being one of the reasons why a consultant might be used. It was expected that the level of paperwork required would be a pain point, but it was surprising that this wasn’t bought up by more of the farmers interviewed, except for one farmer who was hiring someone just to help them complete the paperwork. Instead, there was a theme from the responses showing that farmers found this as a way to improve record keeping and report on factors as a result – with the comment “what gets measured gets managed” often given. Some of the interesting pain points raised were:

“Not having a good framework that sits within the farm management software that you can just go in and attach everything easily to and share as required. I’m willing to probably invest in that.” (Farmer)

“One of the challenges in trying to manage all this information is that with the different rules, interpretations, and expectations of all the different properties, there is no way of really being able to summate all this information up into one total master plan. It ends up being complex and confusing, and then it is questionable in terms of where the value is created.” (Farmer)

5.1.3 Outcomes of Non-Financial Reporting

A wide variety of outcomes from NFR processes were given by participants, ranging from positive to negative, and physical to intangible outcomes. An interesting outcome of the compliance requirements was the change in mindset and understanding by farmers:

“An outcome is that we have a more holistic view around sustainability and are questioning what are the right behaviours or right things for the right places.” (Farmer)

“An outcome is understanding what biodiversity is there and what our water quality looks like. I think that has driven a big mindset change in thinking about that and what actions we do every day that have an impact on all those factors i.e., biodiversity, water quality” (Farmer)

One of the negative outcomes raised was that farmers felt they were lacking a definitive set of rules and outcomes to work towards and weren't being told exactly what they should report on. This corresponds with a stakeholder's point of view that the national environmental policies had taken away their decision-making ability. Some farmers also were reluctant to invest in case new policies had an adverse outcome.

“The national focus that has come in is not getting the buy-in required for effective change, as we haven't got the accountability piece right, and there are not enough resources to support it. Outcomes happen better when farmers come together and work to make progress i.e., catchment groups.” (Stakeholder)

5.1.4 How can Non-Financial Reporting be More Effective?

A key aspect that was explored during the interviews was what made NFR effective for the business, or what would make it more effective. The importance of providing context and action points to take forward was considered important by many.

“Non-financial reporting provides a number but not always the tool to help manage the number” (Farmer)

“Need to focus on developing and providing solutions to help solve issues, rather than just using science to highlight the problems.” (Farmer)

“So rather than the actual numbers themselves, which in isolation don't mean a whole lot, it's more what are we doing from an action point of view to either meet or overcome our requirements.” (Farmer)

Another aspect that came through was the importance of creating accountability in the process, with the view that farm plans did not change actions on their own, and continual improvement required feedback on things that farmers could improve or influence. Benchmarking was considered important by many for providing context and relevance, and one farmer wanted to see more farmer-led benchmarking in the ESG space.

“Farm environment plans don't generate change. It's the audits and assurance processes that they go through that create the change and accountability. It's like doing a farm budget – you need to report on the numbers.” (Stakeholder)

“Continual improvement is about getting feedback on things you can improve/influence. Is there enough feedback about things like that that the producers can influence in terms of generating actionable outcomes i.e., meat yield?” (Stakeholder)

“The first part of the process for continuous improvement is understanding where you sit, and you can’t do that if you’re just comparing it to your data.” (Stakeholder)

A clear theme that arose was that to generate effective change in sustainable outcomes, good communication and team culture on the farm was hugely important. This is a challenge to achieve in a larger business with more employees.

“A good outcome is how we integrate protecting our waterways or biodiversity in our daily discussions with the farm team and contractors. That’s getting down to making sure that on a day-to-day basis we have the right behaviour, are doing the right things, and we do that in the most efficient way and build it into our daily routines to deliver those outcomes. For me that’s one of the big challenges – it’s easy to sit and draw up a plan. Then it’s how you deliver that plan on a day-to-day basis – using your culture and the whole team approach to make it work.” (Farmer)

“How do you set up systems on the ground that enable staff to own it? It’s about engaging them and them believing that they are part of something bigger.” (Farmer)

5.1.5 Strengths and Weaknesses of Non-Financial Reporting

For farmers, some of the key strengths and benefits they saw from NFR requirements were risk management, awareness, market premiums, and interest rate savings.

“In terms of strengths, I think it forces farmers to think about what data they’re looking at, how it affects their farming business, and where the opportunities may lie to make a change. Most farmers probably won’t admit that because it feels like a painful process, like doing a budget, but it is probably the best process I go through every year in terms of understanding how the business is performing and where we may end up or what the challenges will be.” (Farmer)

In terms of weaknesses and challenges, these centred around the lack of resources, measurability and clarity of information, and financial challenges:

“It’s another ‘job’; another ‘cost’; the cost doesn’t yet equal the benefit; a lot of duplication in reporting etc. Also, farmers are busy; stressed; pressured; lacking profitability; getting heartily sick of others wanting more and more information from them that doesn’t contribute to the bottom line.” (Stakeholder)

5.2 Sustainability

5.2.1 Key Themes

To provide greater context for why NFR is important, participants were asked how they defined sustainability, the key KPIs they assessed sustainability on, and how outcomes of NFR could be used to improve farm business sustainability. Figure 10 shows the key themes emerging from the interviews.

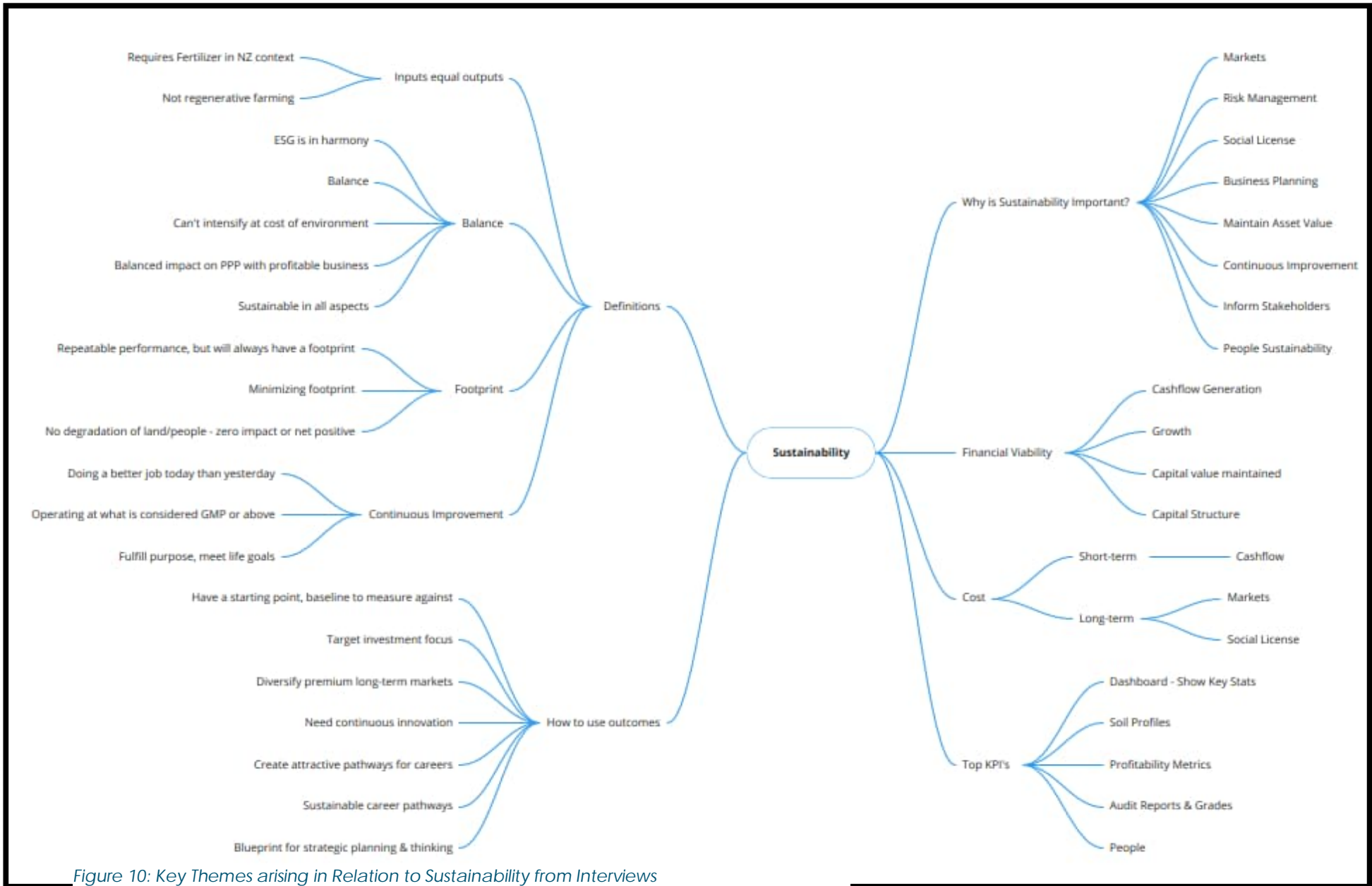


Figure 10: Key Themes arising in Relation to Sustainability from Interviews

5.2.2 Definition of Sustainability

When asked to define sustainability, a wide range of responses were received; however, responses were able to be grouped into four areas, being continuous improvement, footprint, balance, and inputs should equal outputs.

*“Doing a better job than we did yesterday in terms of protecting the environment, minimizing our footprint, and farming for the future generation. Having a more sustainable business than when we started.”
(Farmer)*

*“Repeatable performance year-on-year, accepting there will always be a footprint but meeting expectations of stakeholders and showing steady improvement while remaining profitable and competitive financially.”
(Farmer)*

*“Maintaining the ability to grow the business, while doing it in a way that maintains or improves the underlying asset. The productive capacity of the property is maintained or enhanced going forward in line with meeting environmental outcomes. Outputs must be matched by inputs in.”
(Stakeholder)*

“Keeping ESG in harmony – balancing impact on people, planet, and profit and ensuring you stay trading.” (Stakeholder)

Financial sustainability was an underlying requirement, both in terms of generating cash flow and maintaining capital value. Some participants identified that there could be an inherent conflict between achieving short-term results and maintaining the long-term value of the business, and that reduced production could threaten the capital value of the business.

“Need the ability to produce cash and grow the business.” (Farmer)

“Maintaining capital asset value is important, operating profit can sometimes be short-sighted and need an understanding of how production impacts on capital values.” (Stakeholder)

“Challenging when having to reduce production but the asset values are geared towards higher levels of production, therefore how do you maintain asset values and be sustainable?” (Farmer)

“Need to balance capital requirements against people, operations, and environment. There is no one sustainable capital model, it needs to be customised to the business.” (Stakeholder)

A challenging factor identified by a corporate entity was balancing the focus on sustainability and NFR with obtaining sufficient financial results to keep shareholders satisfied with financial returns. Another corporate noted that it was important that shareholders were chosen on being aligned with the right values for the business, as if they were only interested in short-term returns this would have an adverse outcome for sustainability.

“Need to balance the shareholder’s needs to generate expected returns with sustainable outcomes that do not generate the same level of profits, which is challenging when other factors such as milk price and interest rates are other big influencers of profitability. If there is an over-focus on non-financial reporting, it could lead shareholders to think that management is not focused on financial results.” (Farmer)

People sustainability was highlighted as being one of the keys to achieving sustainable outcomes long-term. One corporate farming group noted that if they had answered this 10 years ago, they would have focused on farm systems, but now they saw people were key to their business, and it would be their people's success that drove their success. This was highlighted by another stakeholder who emphasised that the industry needs to focus on people sustainability, for both employees and owners. One way the corporate farms were doing this was to model or use some of the well-being initiatives and tools used by large non-farming corporate entities, which is an area that some smaller farms could look to implement that would have a high payoff compared to the level of investment required.

"Need to make agriculture attractive as a career pathway on the people front to achieve sustainable outcomes long-term." (Stakeholder)

5.2.3 Cost of Sustainability

As expected, participants were aware of the cost of implementing sustainable actions, and one noted they would have spent upwards of hundreds of thousands in environmental actions. The cost of being an early adopter was also raised:

"Don't want to be at the front as there is a higher cost to being an early adopter, but want to be a fast follower." (Farmer)

"The cost of being an early adopter impacts on shareholders perception of how the business is run, and it is hard to balance shareholders expectations of returns while implementing sustainable actions." (Farmer)

Conversely, other farmers noted that the long-term cost of not achieving sustainable outcomes will be far greater:

"We'll lose our social license in the community if we don't sort out water quality, and if we don't sort out biodiversity or animal welfare, we'll lose market opportunities. The cost is massive in the long-term if we don't sort this out, even though the ongoing cost is hard to measure in terms of cash in the business. We must put aside the short-term pain of the cost and look at the long-term, as the cost is greater in the long-term." (Farmer)

"I don't see it as a cost, I see it as being incredibly exciting. How do we evolve our systems to make the most of what is considered a loss today, and create more circular systems" (Farmer)

A problem identified by one stakeholder was the issue of justifying short-term costs on the environment if other long-term environmental actions were being done:

"Hard in practice as you can justify short-term cost on the environment on the basis that you are doing other long-term things for the environment. For the most part, if you are doing something and you think it's not good to be doing it, you shouldn't be doing it. It's a conscious thing, being sustainable is stopping now because you know something isn't right." (Stakeholder)

In terms of investment and spending on sustainable actions, one farmer noted it was important to incorporate this into financial planning and have good conversations with their bank about it, so the bank could be comfortable with the level of investment required. Supporting this finding was the comment by one bank that they wanted to see an investment line in the budget for annual environmental expenditure.

5.2.4 Local versus Market Requirements

A key theme that arose under sustainability was the differences between what is considered essential for the social license to operate in New Zealand versus the global market requirements. While many raised that the issue of water quality is important to maintaining a social license to operate in New Zealand, for overseas consumers - emissions, biodiversity, water use efficiency, and people have a much greater focus. One corporate farm reported that overseas visitors were frequently more focused on emissions/kgMS, or water use/kgMS than on anything else. Stakeholders highlighted the need for data to prove to our markets how growers are producing food, as it was noted that high-end markets and brands are wanting sustainability information to feed into their sustainability reporting.

“When we look at where our markets are going and our customers around verification, biodiversity etc, this is baseline stuff we need everyone to understand. The hard part has been that there is a perceived lack of value in it, but as we go forward, we’re seeing that there is value. It’s not just about being able to sell it’s getting into the market to sell.” (Farmer)

“It is more and more important to provide data alongside the product.” (Stakeholder)

“You can’t just say that we’re doing it, you have to have some backing to it.” (Stakeholder)

“The market is hungry for non-financial reporting to display how they are assisting and positively contributing to the non-financial area. Scope 3 emissions reporting is a commonly used example – however, it is only one part of a whole of farm consideration.” (Stakeholder)

5.2.5 Sustainable Outcomes

NFR and farm planning were identified as helping change the perception of what were sustainable outcomes, however, there were mixed views on this subject:

“It’s been good in terms of looking at different soil types and understanding how to manage them for the environment. Also, for understanding opportunities to reduce emissions and nutrient loss, and learning about biodiversity and how to protect that” (Farmer)

However, unintended consequences of changing farm systems to be more sustainable were also identified as a major issue that farmers were battling with:

“Can improve lamb performance but not farm operational performance, one change can cost the other. Incentives don’t always result in the most sustainable outcome.” (Farmer)

“Need to be able to deliver improvements but not unintended consequences. Sometimes you pull one lever, and it affects other things i.e., a well-established riparian planting now chokes the waterway and causes water to divert and flow over race, pushing sediment into the stream” (Farmer)

“We also need to ensure we are not creating unintended outcomes that are materially negative. For example, the rush of capital into carbon forests looked great on paper; however, has proven to have had devastating impacts on waterways, biodiversity decline and communities when these forests are caught up with large weather events.” (Stakeholder)

5.3 Reporting on Non-Financial Information

5.3.1 Key Themes

Participants were asked if they thought NFR should be integrated with financial reporting, and if so, what KPIs they thought should be included. Responses have been grouped as summarised in Figure 11. Given the number of KPIs provided, these are shown as themes in Figure 11 and then enlarged on in Figure 13.

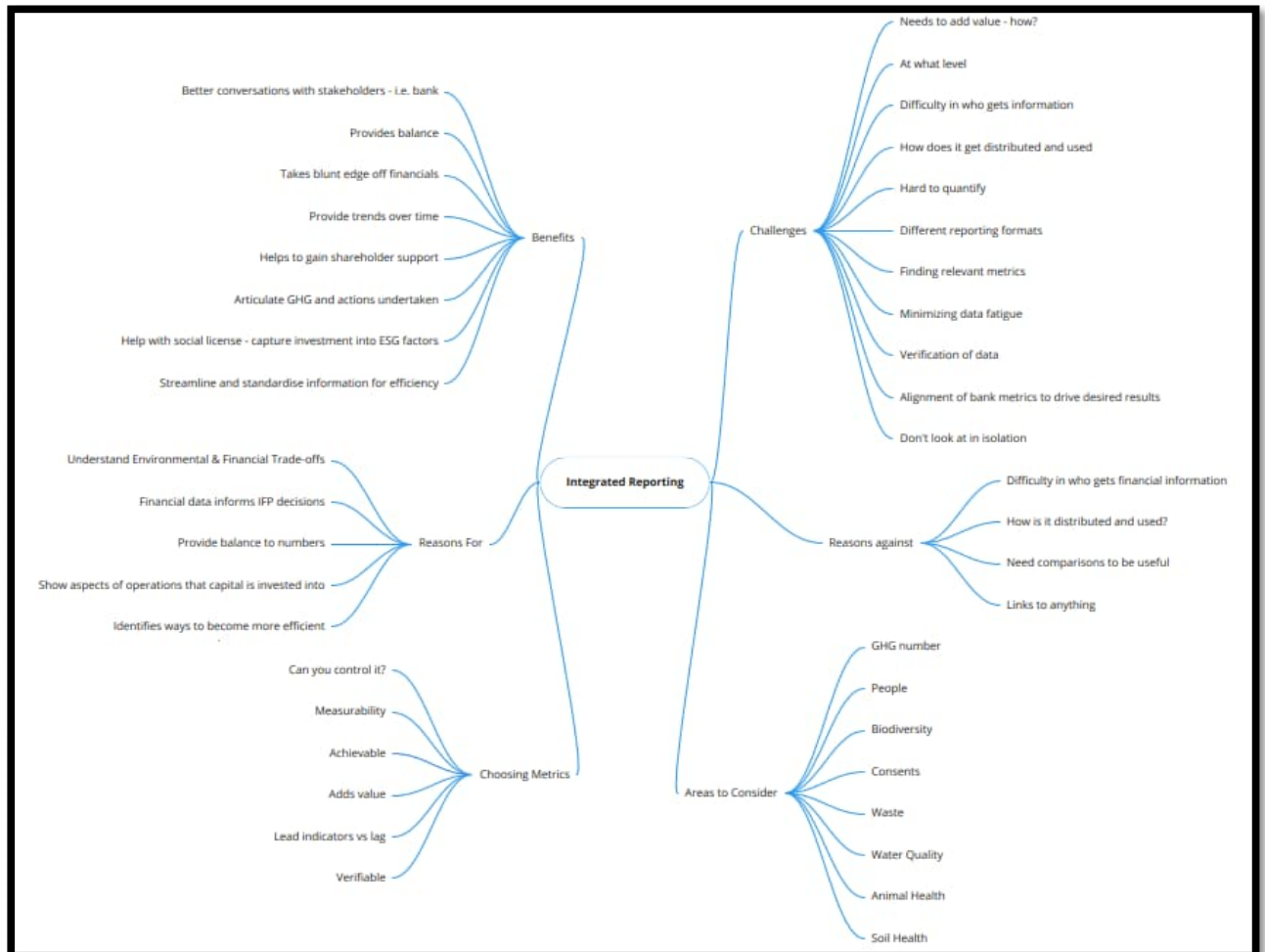


Figure 11: Key themes and responses related to the Integrated Reporting topic from interview results

5.3.2 Integrated Reporting

Participants were asked if they thought NFR should be integrated with financial reporting. Table 2 summarises the responses received by the interview group, with 56% saying yes, and 44% saying both yes and no.

Table 2: Summary of responses on whether non-financial reporting should be integrated with financial reporting.

Interview Role	Yes	No
Farmer	3	3
Corporate Farm	3	0
Stakeholder	3	4
Total Responses	9	7
% Of Responses	56%	44%

While there were no outright negative responses, for those who answered both a “yes and no” or felt they were “on the fence” in this subject, they could see the benefits but equally the challenges in doing this. The corporate farming groups all answered yes strongly, and this is potentially due to having greater accountability for decision-making and their reporting requirements to stakeholders. Many responses centred around the need to provide greater context to the financial results and long-term sustainability of the business. The benefits of integrating with financial reporting included being able to articulate the actions being undertaken in terms of sustainability efforts to stakeholders, measure trends over time, and provide balance to the financial results. Responses included:

“Good from the perspective of looking at financial performance, which is heavily influenced by how we manage these things as they are not disconnected. If you are overusing your resources, your financial performance over time will reflect that. Short-term benefit does not outweigh long-term performance.” (Stakeholder)

“To be a leader in sustainability you need shareholder-aligned views and support. Providing this data helps to take the blunt edge off the financials and gives the ability to consider the whole system in balance – you can’t put one metric at the expense of others. However, you can’t lose sight of financial results.” (Farmer)

Conversely, there were also reasons against integrating NFR with financial results:

“It’s another ‘job’; another ‘cost’; the cost doesn’t yet equal the benefit; a lot of duplication in reporting etc.” (Stakeholder)

“Our farming culture is tied to the land, connection, people, animals, and community, and requiring non-financial reporting to be reduced to a report may diminish its importance in people’s hearts and minds if you were to put it into a set of accounts.” (Stakeholder)

Processor-linked stakeholders were also understandably cautious about this, as while they thought it could be useful, they were aware of the need to maintain an arm’s length relationship with their farmers. They also were aware of their lack of expertise in this space. Linked to this was the comment by one stakeholder that raised the importance of working in with others, as farm sustainability is only one part of the farm system, so it’s important to collaborate with a network of specialists when looking at farm sustainability.

5.3.3 Using Integrated Reporting for Investment

A sub-theme that arose from responses was the importance of using non-financial information for decision-making and investment, and one bank compared it to the story in Alice in Wonderland – if you want to know what road to take, you need to know what outcome you want:

“There needs to be a strategic link between profitability and environmental metrics. This is a key engagement that banks and accountants can bring to the table, as there is a range of risk factors that need to be factored into an investment strategy.” (Farmer)

“If you have a highly profitable business that doesn’t have a sustainable outcome, then it’s not profitable. Showing both sides of the ledger – the financials and the operational piece that we are investing capital into, is important to show that the capital being invested is sustainable over the

long-term in terms of impact on the environment, resources, biological assets etc.” (Farmer)

“It helps to understand environmental and financial trade-offs, and the financial data helps to inform the integrated farm plan decisions.” (Farmer)

While for many family-owned businesses, this is typically an informal decision-making process, one corporate group shared their decision-making model which provided a framework for making significant decisions:

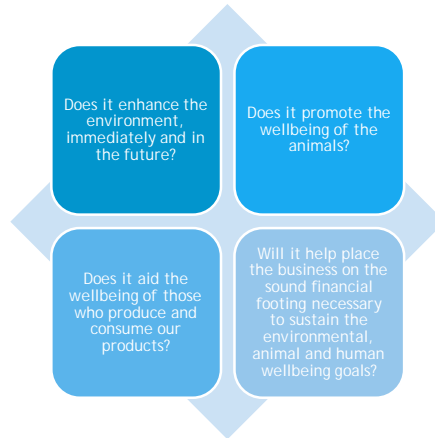


Figure 12: Decision-Making Model for Investment (Adapted from Information Provided)

5.3.4 KPIs for Integrated Reporting

Participants were asked to name three key KPIs they would include in integrated reporting, or the key KPI's they assessed sustainability on. These KPIs have been grouped into themes as shown in Figure 13.

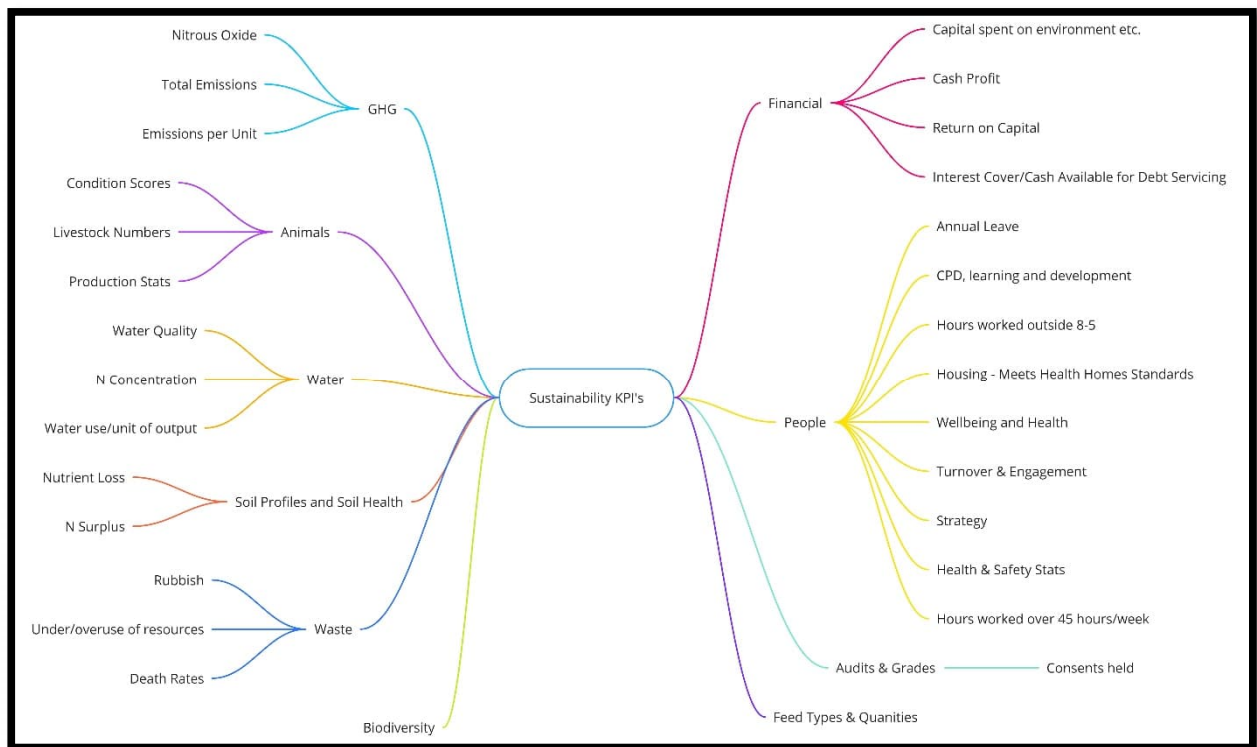


Figure 13: KPIs to include in Integrated Reporting and used to assess Sustainability Performance

Unsurprisingly, KPIs related to emissions were generally given first, which perhaps reflects how topical this is currently. One farmer referenced how the founder of All Birds has commented that the future metric is all around carbon output, because if you get this right then you'll be doing all the other things well. Another corporate farm noted that it's important to focus on materiality i.e., what can you have the greatest impact on, and for them, they saw this as methane output.

Conversely, one stakeholder noted that potentially there is an overfocus on the carbon piece, but social sustainability was equally important. Many different KPIs were given concerning people, and interestingly these mostly came from corporate farming groups and stakeholders. This could reflect the struggle larger farming groups have with people resourcing, and stakeholders' awareness of the social sustainability issues. It may also reflect that family farms have fewer formal processes in place around people. One corporate farm reflected that there is still a huge negative social perception of work culture on farms in general, although they and many others are doing their best to change this. Two interesting KPI's that arose were hours worked outside 8-5, and hours worked over 45 hours/week.

In terms of choosing KPIs, a critical theme that arose was how these were chosen and why. One corporate farming group noted that while you can measure many things, you should focus on measuring what you can control or influence. Another noted that it sometimes was difficult to choose relevant and fair metrics to report on i.e., staff turnover didn't reflect those leaving to progress in the industry or go share-milking. Ultimately, the metrics must align with the desired outcome.

“The KPIs chosen should add value to the business and assist with the achievement of the business strategy and goals.” (Stakeholder)

“Metrics should provide context to the individual business, as while you can compare financial reporting across all businesses, you can’t necessarily do that with non-financial reporting and sustainability – it needs to be about change within that business. Targets need to be within the context of that catchment and place.” (Stakeholder)

Being able to verify non-financial information was very important for a corporate farm, and they were actively working on capturing data within their financial system to assist with future audit requirements.

*“You can very quickly demonstrate that your data is accurate if you are capturing non-financial information alongside financial information. It’s the only way to be able to audit it effectively and do analytical reviews.”
(Farmer)*

There were conflicting views on whether metrics should be standardised from a national or regional level. Comments supporting a standardisation of non-financial metrics included the suggestion that a dashboard providing consistent metrics would be useful, and that there needed to be consistency across the industry to improve information efficiency and standardise information so benchmarking could take place. Conversely, others saw that it was not practical to compare different regions and businesses operating in different contexts. Two stakeholders thought targets need to be within the context of the catchment and place, and ultimately should be specific to the individual farming business as each has its own journey.

6 Findings and Discussion

The findings and discussion section of this report brings together the findings from the literature review and the insights obtained from the semi-structured interviews.

6.1 Non-Financial Reporting

From the literature review and interview process it was clear that there were many important reasons for NFR. Firstly, there is a global focus on sustainability, and stakeholders are expecting businesses to take increased responsibility for their actions. Being able to prove food and fibre is produced in a sustainable manner means being able to produce verified data. Changes in regulations around climate change reporting in New Zealand mean that large companies will be expected to report on their Scope 3 emissions from 2024, meaning they will look to capture upstream data on their suppliers (XRB, 2022). Companies looking to prove their green credentials to consumers will also start to request further information from producers. While this may not result in increased premiums, it may start to cost market access as environmental factors become non-tariff trade barriers (United States Environmental Protection Agency, 2023). Stakeholders and farmers had mixed views on what market benefits could be gained, but as one highlighted, we must maintain our competitive advantage in our export markets, which includes having low-cost production systems.

For farmers, a key finding from both the literature and interviews was that non-financial information and reporting should be an important part of the business planning and strategy process. Once the desired outcomes are outlined, non-financial and financial metrics should be used to monitor progress towards business targets. Both the literature and interviews with farmers identified that when implementing non-financial KPIs, these should be based on being measurable, controllable, material, verifiable, and ultimately add value to the business. To add value to the business, they must help generate action points to work on or provide an understanding of the levers that can be adjusted. It is also critical that one metric is not focused on in isolation to the cost and detriment of the wider business or financial viability. A carefully chosen group of metrics should provide a balanced view of the business and help to achieve the business strategy and goals.

For farms which carry significant debt, because of dairy conversions, expansion, or family succession, their bank is a key stakeholder. A challenge some farmers face is that with high asset values and bank lending geared to this, reducing production to gain sustainable outcomes could lead to a finance risk. The implications of this need to be carefully considered for the industry. In addition, while banks will be required to report on their climate targets and risks, and as a result capture GHG emissions from farmers, they don't want to be placed in the position of being the industry police. Farmers can help manage their relationship with their bank by owning their data, and showing how they intend to improve it. NFR can help track improvements and provide a good basis for discussion with their bank. Overall, it was considered important that farmers could show their financial understanding of environmental implications and their financial investment in environmental/social sustainability in their budgets and financial results.

While both the literature review and interviews found that family farms tend to focus on farming for future generations, corporate farming structures may have external shareholders invested who will require a certain level of return on capital. If their focus is on short-term returns, then this leads to challenges for management in achieving sustainable production systems. This leads to the conclusion that it is important when bringing in external shareholders that they are not focused on returns at the expense of the environment. For management in these corporate-style structures, it is important to balance the reporting on ESG factors and financial results. This also leads to a finding that the protection of the family

farm structure and ownership in New Zealand is very important, due to the intergenerational views of land and people.

In terms of people, it was clear throughout the interviews that social sustainability needs to radically improve if we are to create sustainable farming systems. First, we need more people being passionate about farming and see it as a viable long-term career option. One way to achieve this could be to look outside the farm gate and into other businesses that have good staff retention, training, and health and wellness policies to attract and maintain staff. It was promising when asking for KPIs, more were given for people than any other category. Second, people on farm are the ones driving the sustainable farming behaviours, culture, and the daily actions that contribute to achieving non-financial outcomes. Having good people involved and being passionate about what they do on-farm by understanding how they contribute to the wider picture is an important driver of sustainability.

6.2 Industry Needs and Improvements

Crucially, it appears that while farmers have adapted to compulsory measures of NFR for compliance, some are struggling to define and report on measures and understand what these numbers mean. The industry needs wraparound support from all partners to achieve this. For advisors, this means working with farmers in their area of speciality, and not being afraid to cross-collaborate with other experts. Advisor capability is key, and they need to be able to raise awareness and highlight the opportunities available from considering these topics in a business. They can also help clients to understand the issues and break down what it means for them. For example, one banker provided an example that a banker or accountant should be able to work through a farm GHG report and farm sequestration summary and then work out what a possible net emissions cost could mean for that business. For technology developers, farmers are wanting systems and frameworks that enable them to easily capture data in one place and share it. In conjunction with this, farmers want science that is focused on outcomes, and provides them with solutions and verifiable data to share.

Another finding was that early adopters often do not feel supported, both by other farmers and market returns. It was noted that there was significant cost involved in being an early adopter or investing in sustainable systems. It was acknowledged that there are now increasing opportunities for farmers to enter the sustainable finance market and access lower interest rates, by either proving their farm is operating sustainably or by investing in sustainable projects. Implementation of policy by regional and central governments could look to consider how incentives could be achieved to help encourage more farmers to adopt more sustainable farming actions, not just the top 10% who are already doing this.

Finally, accountability and feedback were considered important for improving sustainable farming practices. Farmers noted that they gained the most benefit from pre-engagement with their audits from irrigation companies, as they enjoyed the chance to work through and understand the outcomes. Being given actions to take away was also considered very valuable, something that stakeholders should consider how they do this. While benchmarking should always be considered carefully within the context of the business, many wanted this for non-financial reporting to help understand where they sat on the sustainability scale. They also saw that stakeholders had a role to play in helping to develop systems that enabled non-financial data capture in conjunction with financial information.

7 Conclusions

In the new era of increased focus on climate change, farming businesses need to be climate-focused and cost-competitive to maintain a competitive advantage. Demonstrating high environmental standards, social sustainability, and animal welfare will become critically important if we want to trade with developed countries. As a result, greater levels of regulation are coming from the Government and processor space to capture sustainability information.

From a governance point of view, farmers need to be strategically engaging with these reporting requirements to manage risk, maintain capital asset values, and generate better business value, rather than just seeing them as a compliance cost to the business. Data must be used internally and externally to drive good decision-making, identify opportunities, and minimise negative business impacts. Using an ESG-style framework can help to identify areas to minimise waste, improve efficiencies, and manage costs. Support is needed from the closest stakeholders in a farming business (employees and shareholders) in driving change in on-farm practice.

Farmers have shown huge adaptability in recent years to changes, and a mindset shift is evident from the farmers interviewed. However, it is a process of continuous improvement, and the industry has a long way to go in defining what good NFR is and effectively integrating it into the understanding of financial results. The ability to do this should not just be limited to large corporates with scale and resources, it should be available and applicable to all farmers looking to improve their farm performance. This will require support from the wider support team around a business in helping farmers to understand and implement change, from technology, science, banking, suppliers, and even accountants.

8 Recommendations

Recommendations for Farmers

1. Identify what non-financial KPIs are relevant to your business and use these as part of your business planning process to help ensure these are effective.
2. Engage support from your trusted support team to help you implement effective non-financial reporting.
3. Provide balanced NFR alongside financial reporting to shareholders and financiers to help provide whole-farm focus in discussions around results.
4. Engage with employees effectively as part of the sustainability process, to build a sustainable culture on-farm that will help generate desired results.
5. Drive farmer-led benchmarking to understand where you sit on the sustainability bell curve.
6. Understand the cost of being an early adopter, and target investment in sustainable actions gradually that will help to set up long-term business resilience.

Recommendations for Stakeholders

1. Engage early with farmers as part of the pre-audit process to gain buy-in and engagement for compliance requirements.
2. Build advisor capability to help farmers with the sustainability journey.
3. Use technology effectively and invest in systems that reduce time and input requirements for farmers to report on sustainability efforts.
4. Support early adopters of sustainable actions, through either financial assistance, industry recognition, or market premiums.

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10 Appendices

10.1 Appendix One: Interview Questions for Farmers

Introductory Questions

1. How would you describe your farming system?
2. Who do you see as being the key stakeholders in your business?
3. What integrated farm planning and/or audit/assurance processes are required at present within your business?
4. How have you developed your integrated farm plan/farm environmental plan over the last 5 years?
 - a. What help or support have you required to develop this?
 - b. Which template or model have you used?

Effectiveness of Non-Financial Reporting

5. What changes have you made to farm management practices since audits & farm plans have been implemented?
 - a. What is your view on the information these processes provide?
 - b. What actionable outcomes are being generated from these processes?
 - c. How successful do you think these processes are in generating actionable outcomes?
 - d. Can you provide some examples of outcomes that have been generated?
 - e. Are there any pain points?

Sustainability

6. What is your definition of farm sustainability?
 - a. What are the main components of sustainability that you focus on?
 - b. Rate yourself from 1-10 of how you think you are performing from a sustainability perspective?
 - c. Why did you give this value?
 - d. Based on your rating, what improvements would you make to increase this?
7. Are you using non-financial information generated from integrated farm plans and assurance programmes to improve farm performance and sustainability?
 - a. If yes, what are the key pieces of information that you find most useful?
 - b. If no, why not?

Reporting on Non-Financial Information

8. Do you measure and report on non-financial factors to other stakeholders in the farming business?
 - a. If yes:
 - i. What information on non-financial factors and sustainability do you provide to other stakeholders?
 - ii. What are the key challenges in reporting on non-financial information?
 - iii. What are the advantages of reporting on non-financial information?
 - iv. What would be the top key performance indicators (KPIs) you report on?
 - b. If no, why?

Integrated Reporting

9. Should non-financial reporting be integrated with financial reporting?
 - a. If yes, why would this be valuable? If no, why?
 - b. List three things that should be included?

10.2 Appendix Two: Questions for Stakeholders

Introductory Questions

1. Briefly describe what your role is and how it links to farm sustainability?
2. How are you/your employer linked to farms as a stakeholder?
3. What changes have you seen being made to farm management practices since integrated farm plans and assurance programmes have been implemented in the last 5 years?
 - a. What is your view on the information these processes provide?
 - b. How successful do you think these processes are in generating actionable outcomes?
 - c. Can you provide some examples of outcomes that have been generated?

Sustainability

4. What is your definition of sustainability in a farming business context?
5. What would be the top key performance indicators (KPIs) you assess farm business sustainability on?
6. How could outcomes from non-financial reporting be used to improve farm business sustainability from:
 - a. A farmer perspective?
 - b. A stakeholder perspective?

Non-Financial Reporting

7. What non-financial information does your business require/receive from farmers currently?
 - a. Are there any proposed changes to this non-financial information currently required?
 - b. What other things do you think should be reported on?
8. What opportunities for non-financial reporting on farm performance do you see?
9. How could stakeholders help to improve the outcomes of non-financial reporting?

Effectiveness of Non-Financial Reporting

10. How effective is non-financial reporting in changing on-farm practices and habits for farmers in the context of farm business sustainability?
 - a.
11. What would you identify as the strengths and weaknesses of non-financial reporting?
12. What are the factors that would improve non-financial reporting on farm performance?

Integrated Reporting

13. Should non-financial reporting be integrated with financial reporting?
 - a. If yes, why would this be valuable?
 - b. List three things that should be included?
 - c. If no, why not?

Other

14. Are there any questions you think I should have asked?
15. Do you have any other comments you wish to make?

10.3 Appendix Three: Question Tree

