

The social process and outcomes associated with the transformation to regenerative agriculture: A case study of Wilmot

SOCIAL REPORT | 2021

Property	Wilmot
Primary Decision-Makers	Alasdair MacLeod, Owner Stuart Austin, General Manager
Social Structure	Remote Owner, On-Farm Manager
Enterprise Type (s)	Beef Cattle Trading
Location	New England, NSW
Motivation for change	<ol style="list-style-type: none">1. The need to find better ways of farming, particularly for drought resilience2. The desire to demonstrate the potential of well-managed grazing for financial, productive and environmental gains e.g. carbon sequestration3. The need to find a stable and rewarding livelihood with a sense of agency



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FARM FACTS

ENTERPRISE: Cattle Trading, Grass-fed Angus beef, Carbon trading

PROPERTY SIZE: 1854 ha

LOCATION: Hernani, New England NSW

30°19'23.92"S, 152°24'13.74"E
(Google Earth)

ELEVATION: 1080m -1270m

AGRO-CLIMATIC REGION:

Temperate Cool Season Wet

ANNUAL RAINFALL: 1180mm

SOILS: Uniform texture earths (Kandosols), texture-contrast non-sodic soils (Chromosols), structured soils (Dermosols) and structured, iron-rich soils (Ferrosols)

MOTIVATION FOR CHANGE:

- The need to find better ways of farming, particularly for drought resilience
- The desire to demonstrate the potential of well-managed grazing for financial, productive and environmental gains e.g. carbon sequestration
- The need to find a stable and rewarding livelihood with a sense of agency

INNOVATIONS:

- Converted from set stocking under conventional grazing practices to time controlled rotational grazing practices.
- Development of cloud-based grazing management tool
- Marketing of carbon credits, for sequestering soil carbon

SOCIAL STRUCTURE:

Trades as 'Wilmot Cattle Company', with a remote owner (Alasdair Macleod) and on-site General Manager (Stuart Austin)

KEY RESULTS:

- Returned a profit in 7 of the 8 years studied, versus 3 for the average farm.
- Exposure of bare ground is 90% lower than that of surrounding area.
- Reached broad audiences including more than 1,500 visitors to Wilmot, numerous mentees and more than 5,000 followers on Facebook.

Executive Summary

Soils For Life exists to support Australian farmers in regenerating soils and landscapes: to build natural and social capital and transform food systems. The Soils For Life case study program provides interwoven, evidence-based accounts of land manager and landscape change and regeneration, that underpin our mentoring and outreach programs. This document aims to provide an account of the social elements of this change process and the associated outcomes for social forms of capital and the enterprise more broadly.

This document details the experiences of the decision-makers of Wilmot, New England New South Wales. The cattle farming enterprise is owned by Alasdair MacLeod, who lives remotely, and managed by Stuart Austin, who lives on-site with his wife and young family. Alasdair originally purchased the property following the devastation of the Millennium Drought on his family property in Yass, in the hope that he could trial and demonstrate more economically and environmentally resilient farming techniques.

Key findings

- The increasing economic and environmental resilience of the enterprise led to increased social resilience in terms of staff skills and engagement and the decision-makers ability to cope with difficult conditions (fig 13), optimism about their farming future (fig 14) and global life satisfaction (fig 6) – (See 4.1)
- The decision-makers' focus on social learning has resulted in improved personal relationships (fig 7) and strong social networks that have supported the transformation of the Wilmot enterprise. – (See 4.2)
- The pursuit of transforming Wilmot to demonstrate an economically and environmentally viable enterprise, has resulted in potential increases in status with financial and government institutions. This, and the associated strategy of employing staff with a passion for regenerative agriculture and fostering their decision-making power have also been effective in improving self-efficacy (figs 11 &12). - (See 4.3)
- For the decision-makers of Wilmot, the process of transforming Wilmot to regenerative agriculture has had positive impact on elements of cultural and spiritual capital such as fostering innovations, the development of a strong sense of a multifaceted productive and stewardship role and a resulting sense of overall life achievement (fig 8). - (See 4.4)



1. Introduction

1.1 Purpose

Soils For Life exists to support Australian farmers in regenerating soils and landscapes: to build natural and social capital and transform food systems. The Soils For Life case study program provides interwoven, evidence-based accounts of land manager and landscape change and regeneration. These case studies form the basis of our mentoring and outreach programs together with the network of change agents and rural leaders who share insights and diverse experience.

The case studies contribute to a strong evidence base to validate and share understandings of regenerative principles, practices and outcomes. Our holistic and transdisciplinary approach encompasses all aspects of regenerative agriculture including ecological, economic, and social transformation. This document aims to provide an interwoven, evidence-based account of the social process of transforming an agricultural enterprise to regenerative management and the associated outcomes for social resources and the enterprise more broadly.

1.2 The Agricultural Enterprise

Wilmot is a cattle farming enterprise in New England, New South Wales. The enterprise is owned by Alasdair MacLeod, who lives remotely, and managed by Stuart Austin, who lives on-site with his wife and young family.

Alasdair originally purchased the property using a Family Estate Trust, following the devastation of the Millennium Drought on his family property in Yass. He chose New England hoping for more consistent rainfall patterns and a simpler enterprise on which he could test innovative and, hopefully, more drought resilient farming techniques.

Alasdair visited the property about once a month in the early stages and, later, reduced his external workload and increased his on-farm engagement to every weekend. He started out by farming conventionally, keeping the original farm manager on. As he began to learn more about regenerative agriculture, through his involvement with organisations such as Soils For Life, Alasdair engaged consultants and a new farm manager to begin the transformation process.

Stuart joined Wilmot as farm manager in 2016 and began to spearhead major practice changes. He was promoted to General Manager when Alasdair purchased two additional properties, with the goal of managing the enterprises conjointly.



Photo by Mike Terry



2. Research Approach

2.1 Conceptual Framework

This document aims to provide an interwoven, evidence-based account of the social process of transforming an agricultural enterprise to regenerative management and the associated outcomes for social resources and the enterprise more broadly. The account must be comprehensive and accessible so that it can integrate with a transdisciplinary and holistic approach and contribute to the evidence base that underpins the Soils For Life mentoring and outreach programs.

2.1.1 The 'Capitals' as orienting concepts

In providing an interwoven, evidence-based account of the social processes and outcomes of the regenerative transformation of agricultural enterprises, it is necessary to define what constitutes the 'social' in this context. The concept of 'the capitals' has long been used in human ecology to conceptualise differentiated types of resources that can interact and determine the sustainability of a complex system. These capitals include financial, physical, natural, social, human, political and institutional and cultural and spiritual resources (Vanclay et al 2015, Scoones 1998).

The use of 'the capitals' concept for rural and regional social assessment has been widely demonstrated, including in the Australian context. Scoones (1998), pioneered their use as part of a framework for identifying livelihood resources, strategies and outcome indicators, in the context of sustainable rural development. The concept was broadened and developed and has since been widely used including as the best practice framework recommended by the International Association for Impact Assessment for the comprehensive assessment of the likely social impacts of change processes, particularly in the natural resource management space (Vanclay et al 2015). More recently, Shirmer et al (University of Canberra 2020), of the University of Canberra Health Research Institute incorporated 'the capitals' into a framework to assess quality of life and wellbeing with an annual broadscale Australian Regional Wellbeing Survey.

This document uses the definition of 'the capitals' provided by the International Association of Impact Assessment (Vanclay et al 2015) as the key orienting framework for analysing the social case study data.

This definition is as follows:

TYPES OF CAPITAL OR ASSET

Note: There are multiple forms of capital (assets, resources) and many different ways of grouping and defining them. What is included should depend on the context of application. The individual capitals are meant to be metaphors and used generically rather than being strictly defined and interpreted narrowly. The concept of the capitals can be applied at different levels of analysis – it can be used to apply to an individual, to a household, a local community, or region. The capitals approach was originally developed in terms of understanding the livelihood strategies of individuals living in impoverished rural communities in developing countries. It has now been applied in a wide range of situations.

Natural capital: includes the stocks and flows of environmentally-provided assets (i.e. ecosystem services) such as food and agricultural resources, forest resources, mineral reserves, soil, water, wetlands and fish stocks.

Physical capital (also known as produced, manufactured or built capital): comprises the stock of equipment, physical plant (e.g. factories), infrastructure (e.g. roads, airports, hospitals, schools), and other productive resources owned by individuals, the business sector, or the country itself, as well as the management systems needed to make them work.

Financial capital: the financial resources available to people, such as their savings and access to credit. It also notes any debts or mortgage they may have.

Human capital: includes the levels of knowledge and skill, formal education, health and nutrition of individuals, as well as their motivation and aptitude.



TYPES OF CAPITAL OR ASSET (CTD)

Social capital: sometimes simply defined as only social networks and trust, it also includes the social rules, norms, obligations, and reciprocity arrangements embedded in social relations, social structures, and the society's institutional arrangements.

Political or Institutional capital: refers to the existence and effective functioning (i.e. capacity) of the society's governance mechanisms – to the governance institutions themselves and to the standards, rules, regulations they apply and their enforcement.

Cultural and Spiritual capital: includes the way people know the world and their place within the world, as well as how they act within it. It also refers to the extent to which the local culture, traditions and language, etc promote or hinder wellbeing, social inclusion and social development. Spiritual capital assists in maintaining a balance across the different capitals and in remaining in touch with deeply-held values and the things that give meaning to life. Cultural capital influences what voices are heard and listened to, which voices have influence in what areas, and how creativity, innovation and influence emerge and are nurtured.

(From Vanclay et al 2015)

It is important to note that while Vanclay et al (2015) define political and institutional capital as specifically referring to governance institutions and systems, an expanded definition that includes broader regimes, agency/self-efficacy and power dynamics is necessary for analysing transformation processes toward sustainability (Avelino 2017, Scoones 1998). This is especially relevant for the transformation to regenerative agriculture, due to the independent and enterprising nature of farming and the resulting importance of agency/self-efficacy and financial institutions (internal review of round 2 case studies 2020, Shirmer et al 2013, Brown et al 2017, University of Canberra 2020).



Detailed consideration of landscape management strategies, business models and their relationships with natural capital, financial capital and physical capital is reserved for the Soils For Life Case Study ecological and economic reports. The interaction of natural, financial and physical capital with the other more socially focussed capitals is of fundamental interest to the case study however, and scope for this is included within the broader methodology and the narrative report.

This document focuses primarily on the social strategies and outcomes (Scoones 1998) associated with the transformation to regenerative agriculture, as seen through the lens of human capital, social capital, political or institutional capital and cultural and spiritual capital (as above).

Photo by Mike Terry



2.1.2 Narratives of Transformation

The Soils For Life Case study program provides an interwoven, evidence-based account of the narratives of the transformation of agricultural systems to a regenerative approach. Regenerative agriculture theorises that the adoption of regenerative practices leads to a self-replenishing natural, social and economic resource base resulting in a sustainable and resilient farming enterprise. As such, agricultural systems are recognised as complex and regeneration as requiring a holistic and integrated approach to the management of natural, economic and social resources.

In an early working paper regarding sustainable rural livelihoods, Scoones (1998) pioneered the use of 'the capitals' to identify the differentiated resources needed to enable various livelihood strategies that could lead to sustainable livelihoods (fig. 1.).

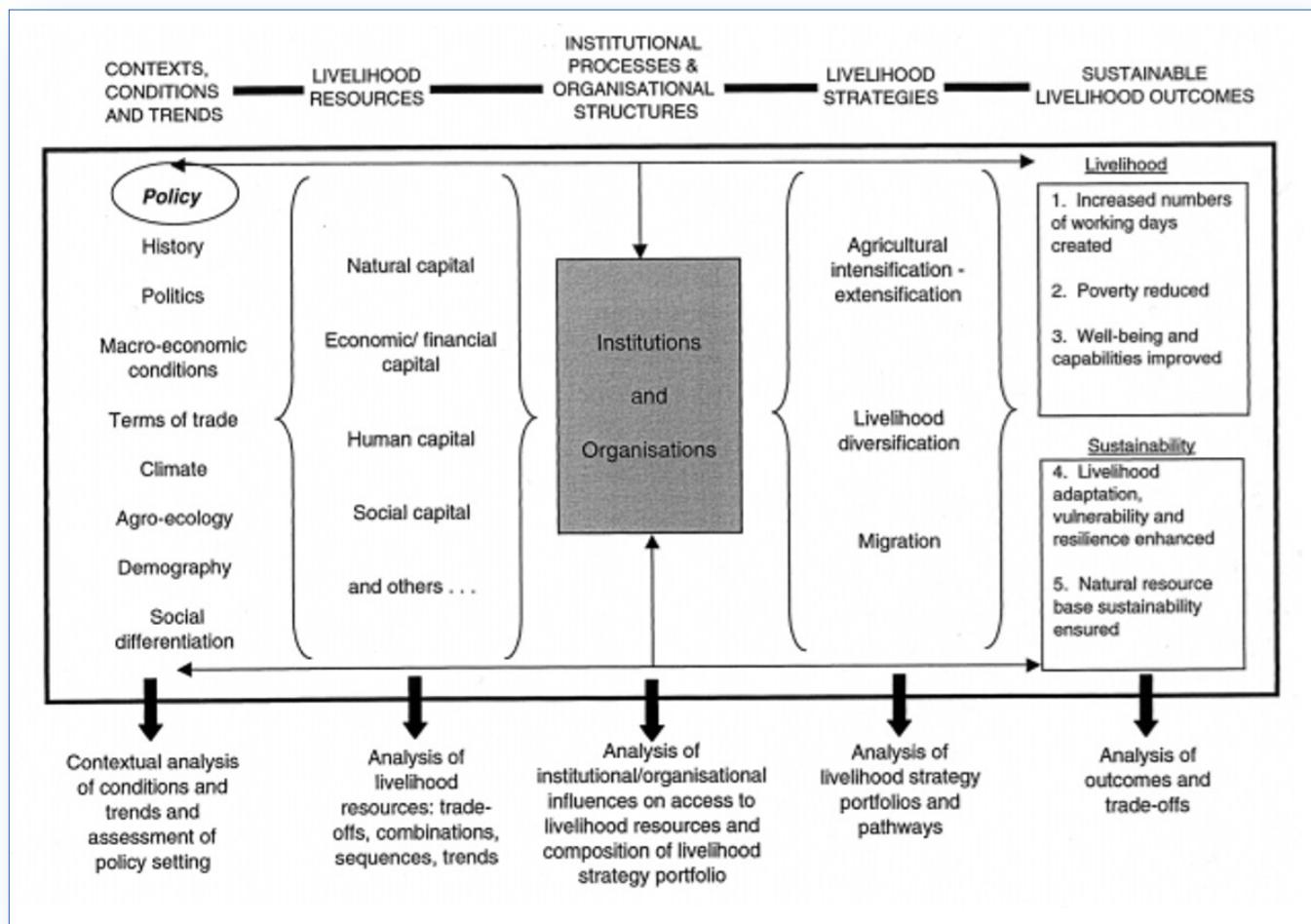


Figure 1: Sustainable rural livelihoods: a framework for analysis (from Scoones 1998)

The concept of regenerative agriculture goes one step further than this, suggesting whole of system transformation to a feedback model whereby strategies are targeted at replenishing the resources themselves. Thus, to understand how the resource base can be regenerated, it is necessary to understand the transformation process. Transformational processes are dynamic and complex and require a historical or narrative exploration to fully explore (Scoones 1998, Klein 2003).

In his consideration of innovation, Klein (2013) outlined a framework for conceptualising the pathways to change.

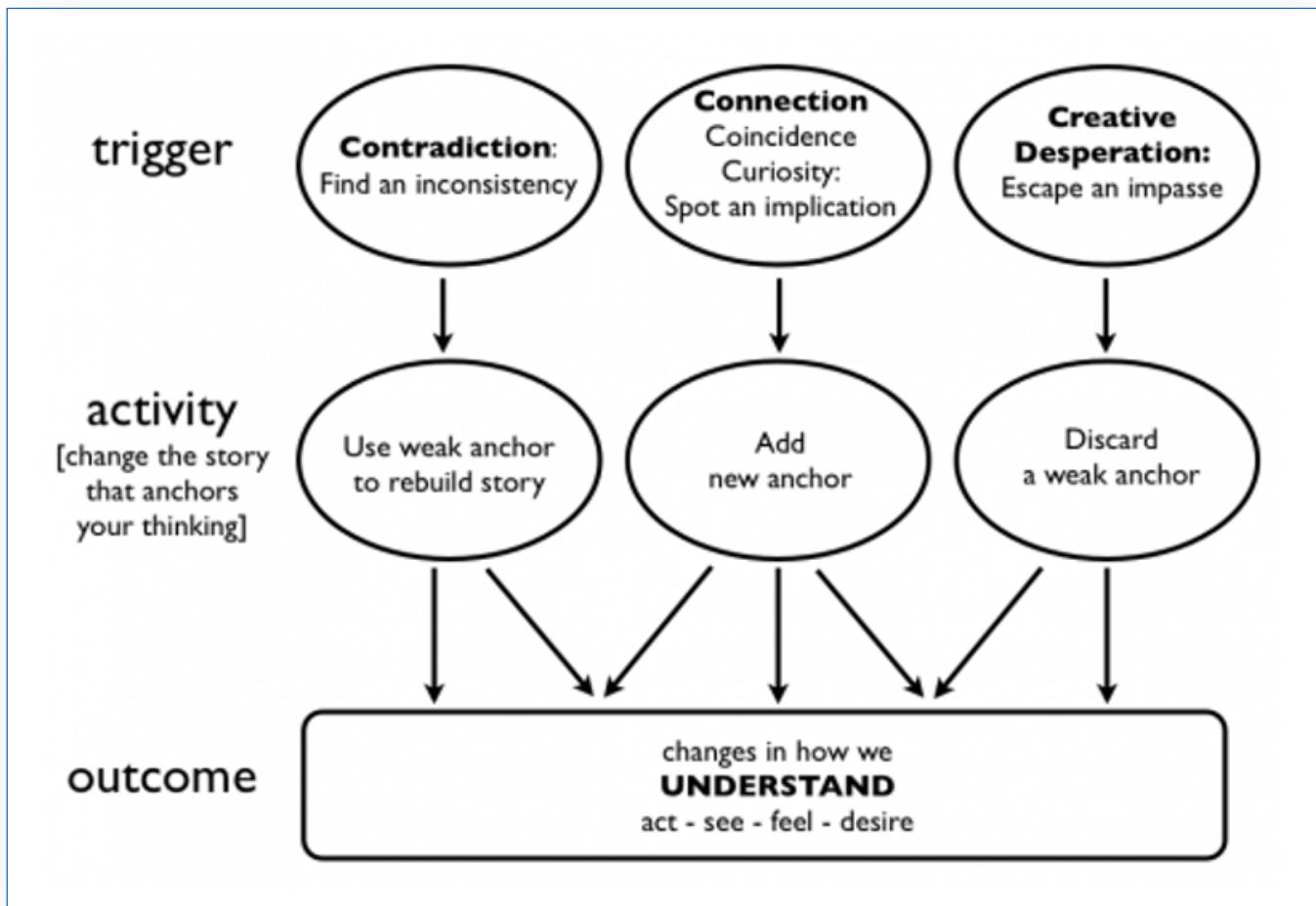


Figure 2 Pathways to change (from Klein 2013)

This model has been used by Clarke (2018) to explore narratives of agricultural transformation and is used by Soils For Life to structure the elicitation of case study narratives from participants and to provide an interwoven, evidence-based account of the process of transforming a system to regenerative agriculture. Using Klein's (2013) model in combination with the Scoones model (1998), triggers and outcomes can be considered in the context of social resources, conceptualised as capitals (2.1.1) and 'activity' can be considered in terms of 'strategies' (e.g. Scoones 1998).

The use of structured narratives of transformation ensures that the complexity of the transformation process and the associated strategies and outcomes can be represented in a way that is immediately comprehensible to a transdisciplinary audience member, participant and researcher alike. Given that the human brain processes data in narrative format (Kahneman 2011) and the vital importance of facilitating shifts in mindset (Massey 2013), expressing the evidence base in narrative format also gives it the best chance of underpinning the Soils For Life mentoring and outreach programs.

2.1.3 Narrative Touchpoints

In an effort to identify the best approach to eliciting social narratives of transformation (see 2.1.2) that comprehensively consider a full range of social strategies and resources, a brief internal review was undertaken in early 2020 of the existing 'round two' Soils For Life social and narrative reports along with key sources of literature.

The literature included a meta review of academic papers detailing regenerative farmer wellbeing in Australia (Shirmer et al 2013), key findings related to regenerative farmer wellbeing across Australia from the Regional Wellbeing Survey (Brown et al 2017), Gleissman's (2015) stages of conversion to regenerative



agriculture. The four meta-themes are used in this case study as 'narrative touchpoints' to elicit new data demonstrating the social strategies and resources involved in the transformation to regenerative agriculture.

The meta-themes or 'narrative touchpoints' are:

- Normal life
- Roles
- Decision-making
- Motivation

The touchpoints relate directly to the lived experience of transforming an enterprise and are used as recurring topics when eliciting chronological narratives from the case study participants. This is important given that a chronological and contextual approach, with limited structured topics works well in eliciting retrospective social information during interviews (e.g. Veale & Shilling 2004). Each topic is also broad enough to allow for comprehensive consideration of social strategies and resources such as human, social, political and institutional and cultural and spiritual capital as well as relationships with natural, physical and financial capital.

2.1.4 Social Report Key Themes Matrix

The 'narrative touchpoints' were set against the concept of 'the capitals' to create a key themes matrix. This matrix is used to orient the case study date during the analysis process (See 3.3).

2.2 Methodology

Given that the process and outcomes of the social elements of regenerative landscape management are complex and multidirectional, and the program team, participants and audience are highly transdisciplinary, the social evidence needs to be easily understood, flexible and comprehensive in both methodology and presentation. To this end a suite of accessible techniques including oral history, closed survey and participant observation were selected (e.g. Scoones 1998).

To best represent the complexity and individual nature of the case study, oral history data forms the bulk of the base data, with survey data and participant observation being treated as complementary. The following techniques are used to elicit and analyse social data for the Soils For Life case studies.

Oral history techniques rely on in depth qualitative recorded interviews using a small number of key topics. This allows for the emergence of anecdotes and topics of importance to the participant as well as the researcher (Veale & Shilling 2004, Scoones 1998). The chronological format of oral history also enables the natural exploration of the narratives required to contextualise and understand processes and outcomes (2.1.2).

The social interview is conducted with all available key decision makers and life partners including e.g. the previous generation. The additional participants ensure a more holistic and comprehensive perspective is represented in the data. The interview is conducted in accordance with the Ethical Practice Guidelines of Oral History NSW (2020).

Each interview contains four chronological phases consistent with the ecological report. These are; the original enterprise, the first stage of practice changes, the second stage of practice changes and now. At each stage the four narrative touchpoints (2.1.3) of normal life, decision-making process, roles and motivation are discussed. Secondary prompts for these topics relate directly to the matrix and cover all four of the socially focussed capitals including social, human, political and institutional and cultural and spiritual capital.

A closed survey creates a repeatable and comparative set of data that can be used to visually represent change and comparisons. Two short sets of questions were selected from those used by the Regional Wellbeing Survey (University of Canberra 2020), the first being the widely used Personal Wellbeing Index



(Australian Centre on Quality of Life 2020) and the second being a set of questions that were found by the researchers to be significantly different in regenerative farmers to conventional farmers (Brown et al 2017).

The questions were kept to a short set to allow the participant time to reflect on changes to these factors across the phases of the conversion process, as discussed during their oral history and ecological interviews. This means that baselines can be set on a case-by-case basis (e.g. as phase one of the transformation process) rather than against broader averages such as those found by the Regional Wellbeing Survey (University of Canberra 2020). This reduces the likelihood of flawed comparisons due to differences in methodology and timing.

Participant observation involves the immersion of the researcher in the day-to-day activities of the subject. The field work undertaken by the project team as a whole uses these techniques to get a holistic understanding of the case study, determine key themes or points of interest and develop rapport with the participant.

The analysis involves scanning the data for themes and organising them within the Key Social Themes Matrix (See 3.3) and the Social Chronology (See 3.1). A key theme is selected for each of orienting concepts of human, social, institutional and political and cultural and spiritual capital. The themes are then used to identify narratives of transformation that demonstrate social triggers, activities and outcomes (See 3.4).

2.2.1 This Case Study

Data was elicited for this report using the above methodology, by Soils For Life social scientist Rebecca Palmer-Brodie during September 2020. The participants included the current primary decision-makers, the owner, Alasdair MacLeod and the on-site General Manager, Stuart Austin.

Initial data was sourced from the Soils For Life Case Study Application Form, completed by Stuart, and from observations communicated by ecologist Greg Hosking following his site visit to the property.

Semi-structured interviews of 1.5hrs each were undertaken separately, as the decision-makers live and work separately. The interviews were undertaken online using the Webex video conferencing program. The transcript from Alasdair's interview was generated automatically by the Webex program and heavily reviewed and edited by the interviewer. The transcript from Stuart's interview was completed by an external transcription service.

Alasdair's interview focussed on the motivations and the decision-making process over considerations of normal life, as he does not live on the property. Because Stuart did not join the enterprise until Phase 3 (see 3.1), Phase 1 and Phase 2 of his interview were combined and referred to his situation just before joining Wilmot, including his motivations for seeking the position.

Surveys were completed separately by Alasdair and Stuart. As Stuart did not join the enterprise until Phase 3, he was asked to complete the survey questions for Phase 1 with reference to his previous life before joining the enterprise, to skip the questions associated with Phase 2 and to complete Phases 3 and 4 normally. In graphing the data, Phase 1 and Phase 3 were connected with a dotted line.

The resulting data was analysed to determine the social chronology (3.1), key survey findings (3.2), the key social themes (3.3) and the key social narratives of transformation (3.4). These are presented in the following section.

3. Results

This section provides a summary of the key data collected through the oral history interviews and the closed surveys. It has been organised into a social chronology (3.1), graphic representations of the survey results (3.2), a matrix of key social themes (3.3) and a diagram of the key narratives associated with the transformation of Wilmot to a system of regenerative agriculture (3.4).

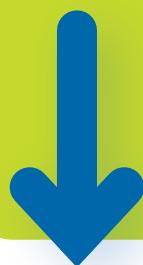


3.1 Social Chronology

Figure 3 Social Chronology of Wilmot

Phase One - the original enterprise

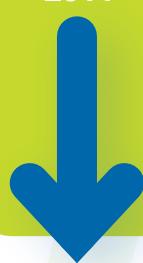
2008-2010



Alasdair purchased Wilmot with assistance from consultant, using a Family Estate Trust. Continues to live & work off-farm full-time, visiting property 1 weekend per month to discuss management
Alasdair triggered to act by effect of drought on family property in Yass. Motivated to demonstrate investment potential of well managed, drought resilient agriculture and by intrinsic value of the site's natural beauty.
Kept existing manager on to continue with traditional set stock grazing system
Decision making based on tradition, understanding of and ideas around regenerative agriculture "crystallising"

Phase Two - the first stage of practice changes

2011



Alasdair left job in the city to "dedicate a lot more time to Wilmot and what we were doing there", on-site 1 week per month but still lived in Sydney so kids could go to school
Alasdair motivated socially by e.g. Soils for Life Case studies and ideas from regenerative agriculture conferences in the US
1st farm manager left, 2nd farm manager hired, original consultant still heavily involved & new agronomist brought in
Decision making based on 2nd farm manager's use of 'pen and paper' holistic grazing charts & consultant advice

Phase Three - the second stage of practice changes

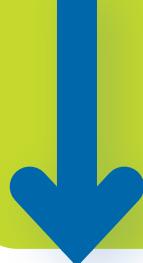
2012-2013



Alasdair reduce off-farm work, start visiting property 1 week out of the month
Alasdair motivated by innovation & potential to demonstrate "the evolution... to a more enlightened approach to grazing"
Decision making based on development of innovative grazing management software system and holistic grazing principles
Stuart working as rural contractor in the Northern Territory, motivated to find secure livelihood & "create our own destiny"
2nd farm manager unwilling to change, 3rd farm manager, Stuart Austin hired and his family moves to Wilmot

Phase Four - the present

2019



Alasdair motivated to demonstrate carbon sequestration potential of well-managed livestock enterprises, Stuart promoted to general manager across the 3 Wilmot properties and supporting 3 farm managers. He influences the community through hosting field days, site visits, mentoring and social media. Stuart's family enjoys relaxed lifestyle.
Decision making continues to be based on developed innovative grazing management software system and holistic grazing principles, Alasdair reduces input in day-to-day decision-making, leaving responsibility to Stuart
Alasdair increased roles in the community of practice including ventures and charities and the purchase of new properties



3.2 Wellbeing Survey

The Wilmot owner, Alasdair and General Manager, Stuart completed a short survey rating their estimated personal wellbeing and relationship with farming across the different phases of the transformation to regenerative agriculture. Phase 1 corresponds with the original enterprise, Phase 2 the initial stage of practice changes, Phase 3 the second stage of practice changes and Phase 4 to now (see 3.1 for corresponding dates).

Key changes over the transformation period:

- Manager Stuart's personal wellbeing indicators went up across the board, with rises in satisfaction with various aspects of his life of between two and four points (fig. 4)
- Both Alasdair and Stuart indicated improvements to their global life satisfaction (fig. 6) as well as satisfaction with their personal relationships (fig. 7) and what they are achieving in life (fig. 8).
- Alasdair experienced dips in global life satisfaction (fig. 6) as well as satisfaction with his personal relationships (fig. 7) and what he was achieving in life (fig. 8) during the initial stage of practice changes (Phase 2) and the second stage of practice changes (Phase 3). This remedied to overall gains in Phase 4.
- Both Alasdair and Stuart indicated improvements across the board to bigger picture questions about their relationship with farming including optimism about their farming future (fig. 14) and their ability to:
 - achieve the things they want on their farm (fig. 11),
 - cope with most difficult conditions on the farm (fig. 13), and
 - make the right decisions about farm management (fig. 12).

3.2.1 Personal Wellbeing Indicators

Stuart and Alasdair rated their satisfaction with the eight aspects of their lives at each phase of the transformation process, on a scale of 1 (extremely unsatisfied) to 10 (extremely satisfied). Together, these aspects form a widely used set of personal wellbeing indicators (Australian Centre on Quality of Life 2020) and are systematically included in the long term broadscale Regional Wellbeing Survey conducted by the University of Canberra (2020).

Overall, Manager Stuart's personal wellbeing indicators went up across the board, with rises in satisfaction with various aspects of his life of between two and four points (fig. 4). Owner Alasdair reported overall improvements to global life satisfaction, personal relationships and what he is achieving in life, following a dip in satisfaction with these elements during phases 2 and 3 (fig. 5). His other indicators did not change across the transformation period, likely due to the separation of his day-to-day living and working situation from the farm (see 1.2).



Personal Wellbeing Indicators - Stuart

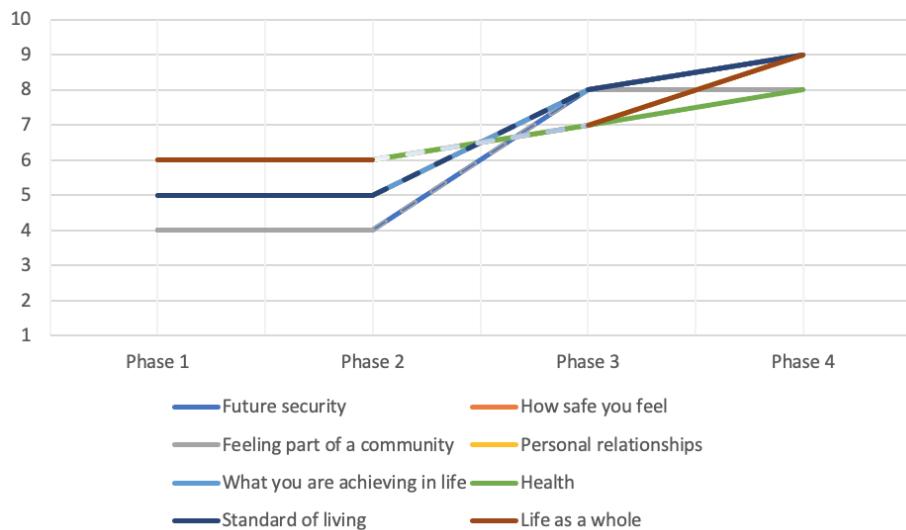


Figure 4 Personal Wellbeing Indicators - Stuart

Manager Stuart indicated an overall increase in wellbeing of between 2 and 4 points, from his situation before joining the Wilmot enterprise (Phase 1) to now (Phase 4). Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3.

Personal Wellbeing Indicators - Alasdair

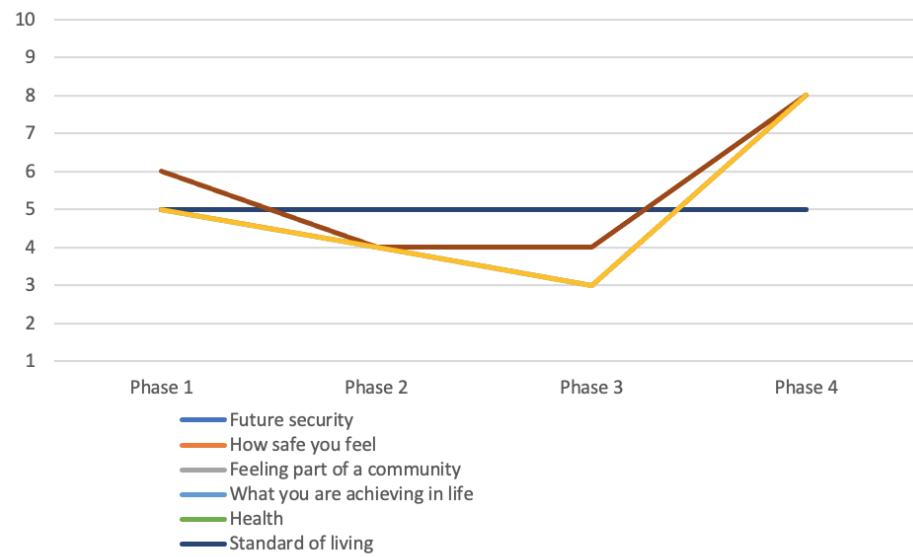


Figure 5 Personal Wellbeing Indicators - Alasdair

Owner Alasdair reported overall improvements to global life satisfaction, personal relationships and what he is achieving in life, following a dip in satisfaction with these elements during the initial stage of practice changes (Phase 2) and the second stage of practice changes (Phase 3). His other indicators did not change across the transformation period, likely due to the separation of his day-to-day living and working situation from the farm (see 1.2)

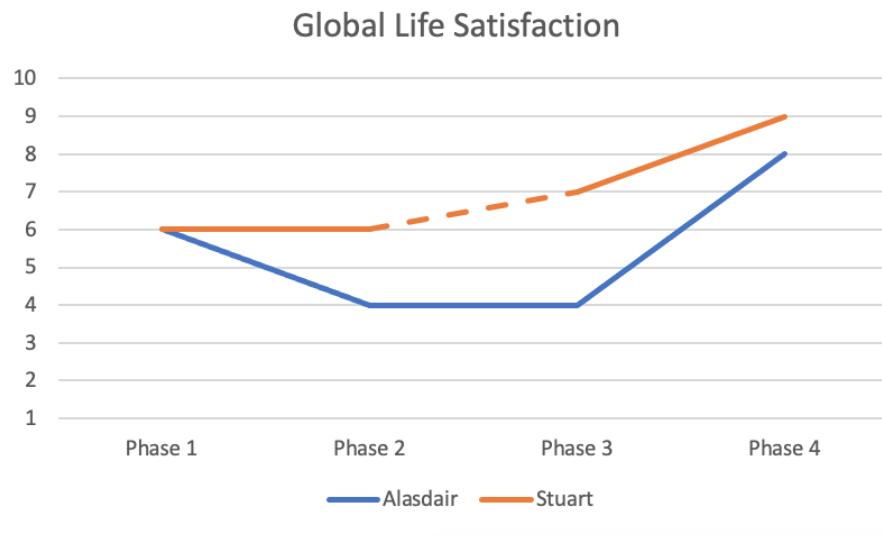


Figure 6 Global Life Satisfaction

Owner Alasdair and Manager Stuart indicated an overall increase in Global Life Satisfaction of 2 and 3 points respectively, over the transformation period. Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3. Alasdair experienced a dip in satisfaction of 2 points during the initial stage of practice changes (Phase 2) and the second stage of practice changes (Phase 3).

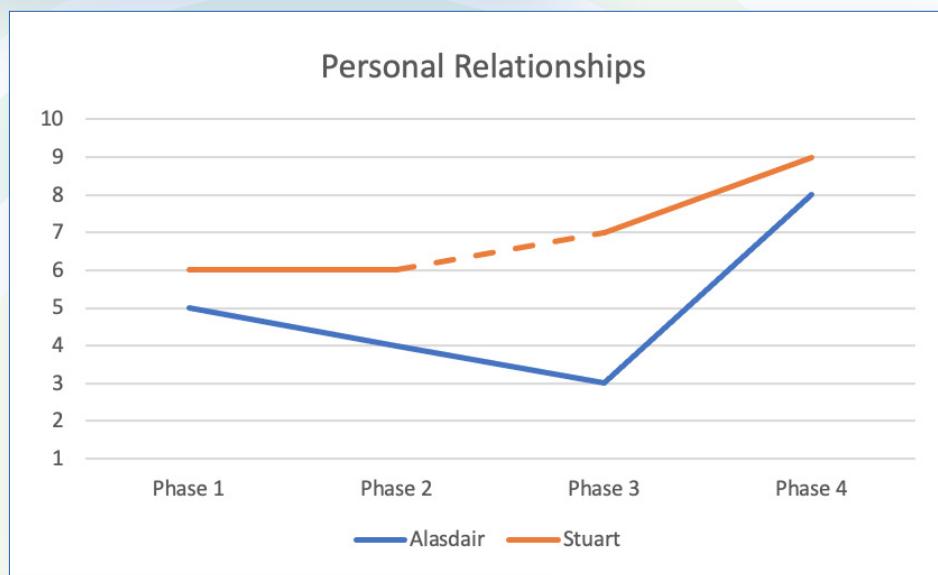


Figure 7 Personal Relationships

Owner Alasdair and Manager Stuart indicated an overall 3 point increase in satisfaction with Personal Relationships, over the transformation period. Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3. Alasdair experienced a dip in satisfaction of 2 points during the second stage of practice changes (Phase 3).

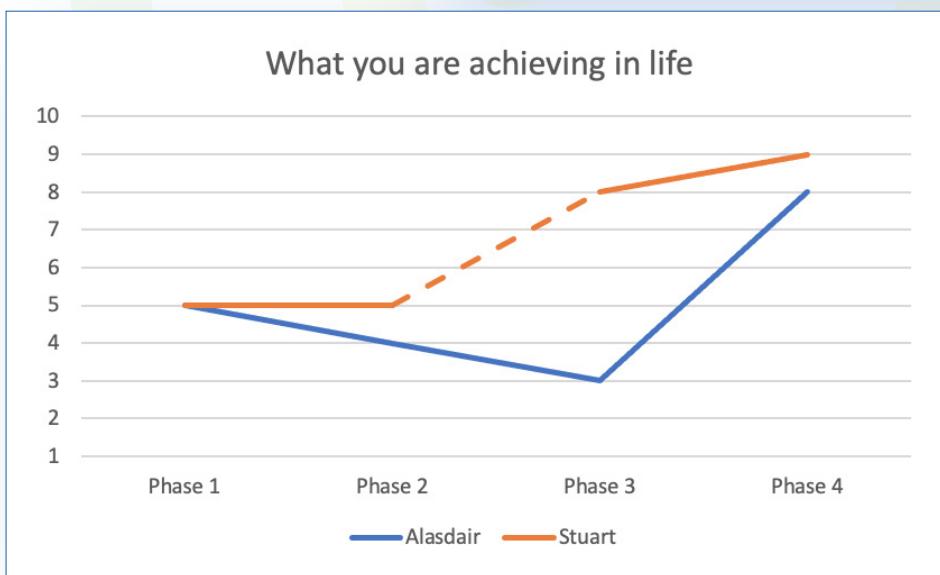


Figure 8 What you are achieving in life

Owner Alasdair and Manager Stuart indicated an overall increase in satisfaction with what they are achieving in life of 3 and 4 points respectively, over the transformation period. Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3. Alasdair experienced a dip in satisfaction of 2 points during the second stage of practice changes (Phase 3).



3.2.2 Relationship with Farming

Alasdair and Stuart rated their agreement with several statements related to their relationship with farming including perceived resilience, self-efficacy and optimism. In an exploratory Australian study, these statements were found to have correlations with regenerative agriculture (Brown et al 2017).

Stuart and Alasdair rated their agreement with the statements for each phase of the transformation process, on a scale of 1 (strongly disagree) to 7 (strongly agree). Phase 1 corresponds with the original enterprise, Phase 2 the initial stage of practice changes, Phase 3 the second stage of practice changes and Phase 4 to now (see 3.1 for corresponding dates).

Overall, both Stuart and Alasdair's agreement with each of the statements went up across the board, with rises in agreement of between one and four points (figs. 9 and 10). Most improvements began during the second stage of practice changes, when Stuart first joined the enterprise (Phase 3) (see 3.1). One exception to this was Alasdair's reported 2 point dip in optimism about his farming future during Phase 3. The dip subsequently rose by 3 points during Phase 4 leading to an overall increase in Alasdair's optimism of 1 point (fig. 14). Similarly, Stuart's resilience levels remained steady when he joined the enterprise in Phase 3, and then experienced a rise during Phase 4 to an overall increase of 2 points.

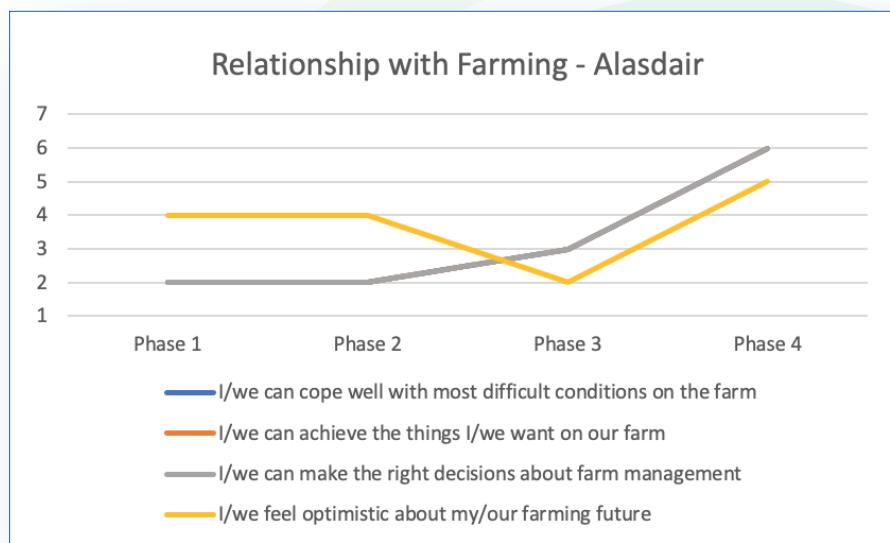


Figure 9 Relationship with farming- Alasdair

After the second stage of practice changes (Phase 3), Owner Alasdair indicated an overall improvement in his relationship with farming of between one and four points out of a potential seven, during the transformation period. His agreement with the statements "I/we can cope well with most difficult conditions on the farm", "I/we can achieve the things I want on our farm" and "I/we can make the right decisions about farm management" follow the same trajectory of steady improvement leading to a 4 point change. His level of optimism about farming, demonstrated by agreement with the statement "I/we feel optimistic about my/our farming future", experienced a dip during Phase 3, which rose during Phase 4 to an overall increase of 1 point.

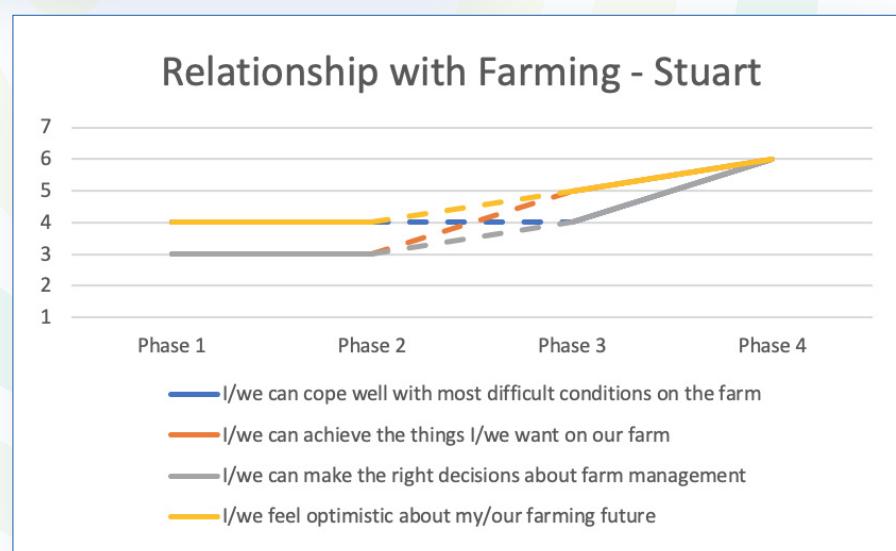


Figure 10 Relationship with farming – Stuart

After joining the enterprise (Phase 3), Manager Stuart indicated a steady overall improvement to his relationship with farming of between two and three points out of a potential seven, during the transformation period. Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes. His agreement with the statements "I/we feel optimistic about my/our farming future", "I/we can achieve the things I want on our farm" and "I/we can make the right decisions about farm management" increased on first joining the enterprise in Phase 3. His resilience levels, represented by agreement with the statement "I/we can cope well with most difficult conditions on the farm", remained steady when he joined the enterprise in Phase 3 and rose during Phase 4 to an overall increase of 2 points. The strongest improvements related to agency and efficacy, demonstrated by 3 point improvements to his agreement with the statements "I/we can make the right decisions about farm management" and "I/we can achieve the things I want on our farm".



Ability to achieve the things I/we want on our farm

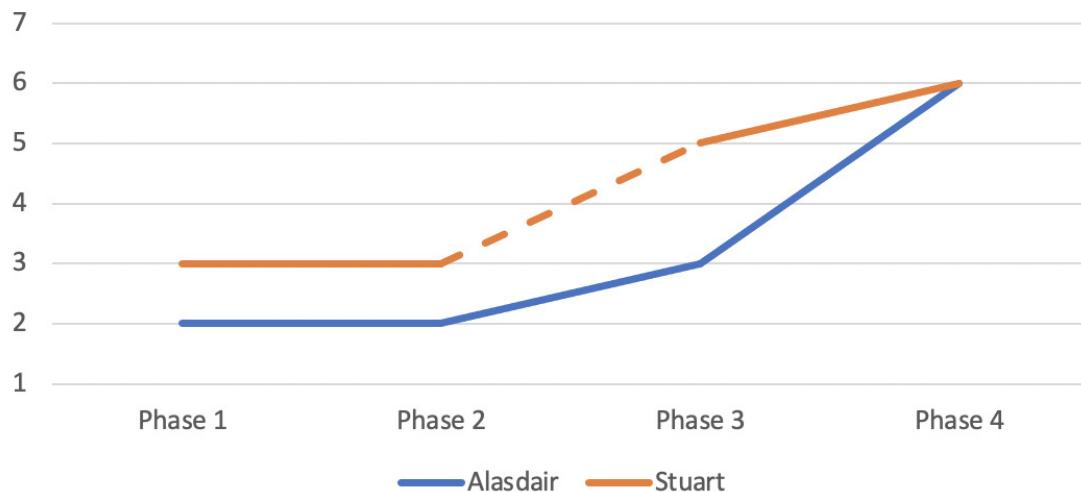


Figure 11 Ability to achieve the things I/we want on our farm

Owner Alasdair and Manager Stuart indicated an overall improvement in their perceptions of self-efficacy, as represented by their agreement with the statement "I/we can achieve the things I want on our farm". Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3. The level of agreement with the phrase rose 4 and 3 points respectively, over the transformation period. Alasdair experienced a steady increase in self-efficacy, while Stuart experienced his biggest rise on first joining the enterprise.

Ability to make the right decisions about farm management

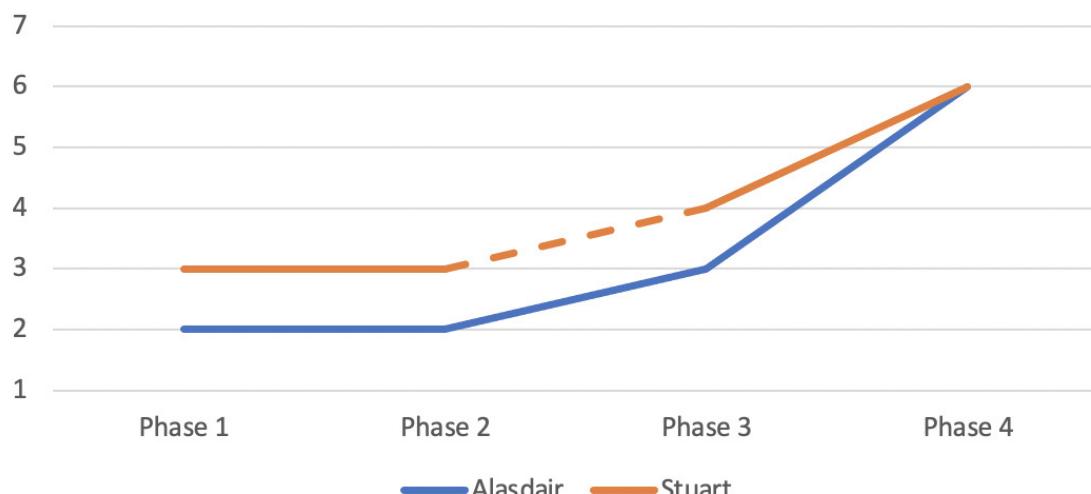


Figure 12 Ability to make the right decisions about farm management

Owner Alasdair and Manager Stuart indicated an overall improvement in their self-efficacy as represented by their agreement with the statement "I/we can make the right decisions about farm management". Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3. The level of agreement with the phrase rose 4 and 3 points respectively, over the transformation period. Alasdair experienced a steady increase in self-efficacy after first making practice changes during Phase 2. Stuart experienced an increase in self-efficacy on first joining the enterprise and a steeper increase during the most recent stage, Phase 4.



Ability to cope with most difficult conditions on the farm

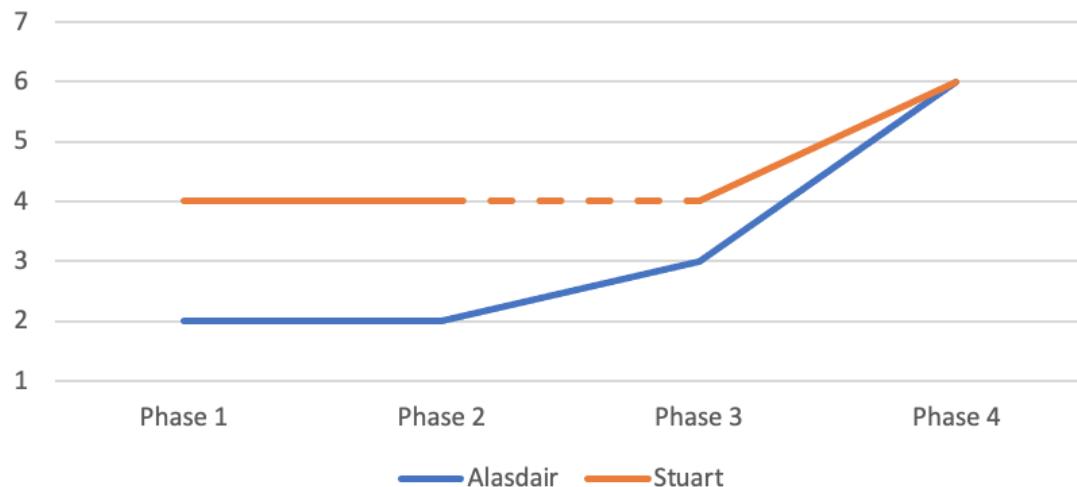


Figure 13 Ability to cope with most difficult conditions on the farm

Owner Alasdair and Manager Stuart indicated an overall improvement in their perceived resilience, as represented by their agreement with the statement "I/we can cope well with most difficult conditions on the farm". Their level of agreement rose 4 and 3 points respectively, over the transformation period. Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3.

Optimism about my/our farming future



Figure 14 Optimism about my/our farming future

Owner Alasdair and Manager Stuart indicated an overall improvement in their optimism about farming, as represented by their agreement with the statement "I/we feel optimistic about my/our farming future". Their level of agreement rose 1 and 2 points respectively, over the transformation period. Phase 2 has been dashed to indicate that Stuart did not join the enterprise until the second stage of practice changes: Phase 3.

Wilmot Social Report



3.3 Key Social Themes Matrix

	ROLES	DECISION-MAKING	MOTIVATION/ TRIGGERS/ VISION	NORMAL LIFE
Human Capital	<p>Alasdair is the owner of Wilmot and initially held a job in the financial sector in Sydney. He held additional roles with Soils For Life and setting up an associated startup Ag. Tech. Maia Grazing, a venture capital business and a charitable foundation.</p> <p>Stuart began as farm manager and promoted to General Manager when the enterprise expanded to 3 properties to streamline management and focus on strategic planning.</p> <p>Stuart's wife Trish worked for Wilmot and Maia Grazing once on-site. She offered a different perspective and skillset.</p> <p>Several consultants were engaged in the early and mid-phases.</p>	<p>Decision-making varied based on the skillset and attitude of the primary decision-makers.</p> <p>Initial decision-making was based on the existing manager maintaining the status quo. The 1st stage of practice changes was based on the holistic management training of the 2nd manager. The 2nd stage of practice changes, under the 3rd manager Stuart, also drew from holistic management training but was more strategic in focus, with a 5-year strategic plan and vision and an openness to innovations.</p> <p>Alasdair and Stuart both trained in finance and management and have a strong financial focus in decision-making.</p> <p>Alasdair was initially heavily involved in decision-making with advice from consultants. He stepped back a lot once Stuart came on board.</p>	<p>Alasdair was triggered to purchase Wilmot and trial regen. ag. by the experience of trying to manage a family farm during the Millennial drought and the need to find a better way of doing things.</p> <p>Stuart was doing rural contracting in the Northern Territory and looking for something "more permanent and settled" for his family, where he could set long-term goals and plans.</p> <p>Stuart was excited by the opportunity Wilmot offered to try implementing all of the holistic management techniques he and his wife had learned. Stuart was determined to realise Alasdair's vision and inspired by his passion.</p> <p>Staff and jobs in Regen. Ag can be hard to find so when you find them staff tend to be passionate and engaged "in just doing their role".</p>	<p>Alasdair enjoys some recreation at Wilmot but mostly works. He spent 1 day per month initially then increased to 1 week per month on site. Reports strong emotional benefits from visiting the property.</p> <p>Stuart's family had some commitments in the Northern Territory including cattle and Trish's long-term job. He was working contractually with little security. Stuart now has a secure, relaxed, purposeful and enjoyable life at Wilmot as does his family.</p> <p>Landscape resilience has improved and with it financial and social resilience. This means that Stuart has the confidence to plan career and family life and reduced stress, even in difficult times such as droughts and the recent bushfires.</p> <p>Staff are selected for attitude [growth mindset], and afforded good work life balance and significant mentoring, training and development opportunities.</p>
Social Capital	<p>Wilmot has a strong role in enabling social learning.</p> <p>Wilmot and Maia Grazing host regular field days and site visits to share the Wilmot story. Stuart estimates that 1,500 people have visited the site.</p> <p>Stuart has strong Facebook presence of around 3,000 followers and Wilmot has around 2,500. Strong engagement on both.</p> <p>Stuart has mentored several people starting their journey and is often answering calls texts and messages for advice.</p>	<p>Decision-making has been heavily influenced by social learning.</p> <p>Alasdair "set himself the task of ...finding people that were doing [grazing] better" and learnt a lot through associations with Soils For Life Case Study farmers and attending Regen. Ag. conferences in the US.</p> <p>Stuart worked on many properties before joining Wilmot, and agisted land and attended many field days when he first joined. These enabled him to learn by observation.</p> <p>Stuart's wife Trish met many innovative farmers with her work with the Northern Territory Department of Primary Industries.</p> <p>Stuart undertook the Executive Link program with Resource Consulting Service (RCS) which enabled two way social learning and advice with other regenerative property's.</p> <p>Consultant Bart was able to find clients with other properties who were able to trial the Maia Grazing software.</p>	<p>Alasdair and Stuart are strongly motivated to use their experience and achievements for social learning purposes.</p> <p>Alasdair is strongly motivated to use Wilmot as a demonstration property for well-managed ecologically and economically viable grazing.</p> <p>Stuart finds helping others fundamentally satisfying and it is a key life goal for him. He hopes to share what they have learned and "benefit someone else in their approach", particularly in helping them to avoid 'pain' during difficult periods such as drought.</p>	<p>Personal relationships have benefited from the transition process.</p> <p>Alasdair very much enjoys his relationship with Stuart and seeing the progress he is making.</p> <p>Stuart spent a lot of time with his family before joining Wilmot and continues to do so after joining. He and his wife Trish are very involved in the local community and have several leadership roles.</p> <p>There are not many local farmers who practice Regen. Ag. but they all get along very well and "have a lot of really good friends".</p>

Wilmot Social Report



	ROLES	DECISION-MAKING	MOTIVATION/ TRIGGERS/ VISION	NORMAL LIFE
Political and Institutional Capital	<p>Alasdair is trying to change mindsets around the environmental and nutritional costs and benefits of meat production.</p> <p>Alasdair in discussions with government about the potential of agriculture to contribute to the deployment of the emissions reduction fund.</p> <p>Stuart and Alasdair seeking opportunities for financial return on ecological benefits such as carbon sequestration.</p>	<p>Alasdair purchased Wilmot with a Family Estate Trust so no need for backers, grants or loans. Trustees have some decision-making power.</p>	<p>Stuart and Trish were motivated to find an "opportunity to create our own destiny": a property where they could influence decision-making. Alasdair's experience in the financial sector inspired him to demonstrate that well-managed agriculture could be a sound investment with co-benefits including carbon sequestration. Alasdair is motivated to "demonstrate that well-managed cattle is a net-positive contributor to the carbon count rather than a negative contributor"</p>	<p>Stuart and Trish fully immersed themselves in Wilmot and "treated this place like we owned it". They work hard and take full accountability. Alasdair considers natural capital as being increasingly recognised as having value in professional investing circles.</p>
Cultural and Spiritual Capital	<p>Alasdair and Stuart both have a stewardship role in helping a beautiful place to thrive.</p> <p>Alasdair has an innovation role in developing grazing management software 'Maia Grazing' to assist in decision-making.</p>	<p>Decision-making is based on trying to create an enterprise to suit the environment rather than attempting to change the environment to suit a desired enterprise. The decision-makers acknowledge the elements that are within their control and those that aren't. They have developed an innovative grazing management tool to assist in decision-making to improve on 'pen and paper' holistic management planning.</p>	<p>The combined natural beauty and business potential of Wilmot motivated both Alasdair and Stuart to become involved with the enterprise. Alasdair is very motivated by innovation. He believes that there are always better ways of doing things. Stuart is motivated to see progress toward Wilmot's vision and strategic plan including financial, productive and on-the-ground environmental progress.</p>	<p>Alasdair and Stuart derive intrinsic satisfaction from spending time on Wilmot and seeing the positive changes they have made to the landscape. Maia Grazing helped them to make "really good decisions" and get through the last dry period. Alasdair believes it will help them to "do even better in the next dry period. Alasdair recommends being open to learning and making mistakes and focussing on small-changes over the long-term [growth mindset]</p>



Photo by Mike Terry



3.4 Key Narratives of Transformation

ORIENTING CONCEPT	TRIGGER	STRATEGY	OUTCOME
Human Capital	<p>Alasdair's need to find drought resilient solutions to grazing following negative experience on family farm during Millennium Drought</p> <p>Stuart's desire to find a stable livelihood and utilise his skillset and experience in regenerative agriculture</p>	<p>Deliberately build combined ecological, financial and productive resilience of enterprise.</p> <p>Hire and foster staff and consultants with a passion for Regen Ag and growth mindset</p>	<p>Alasdair experiences strong emotional benefits from visiting and working on Wilmot.</p> <p>Stuart and wife Trish enjoy a happy and relaxed family life with the confidence to plan career and family life and reduced stress, even in difficult times such as drought and bushfires.</p> <p>Staff tend to be passionate and engaged 'in just doing their job'. They are afforded a good work-life balance and significant mentoring training and development opportunities.</p>
Social Capital	<p>Alasdair's need to find drought resilient solutions to grazing following negative experience on family farm during Millennium Drought.</p> <p>Desire to help other farmers 'avoid pain' during difficult periods such as drought by demonstrating that well-managed grazing can be both ecologically and economically viable.</p>	<p>Learn from the experiences of other farmers and experts by attend conferences and field days and visit other farming enterprises.</p> <p>Engage in training and programs that involve building social networks and support.</p> <p>Host field days and site visits. Actively share story on social media and mentor other farmers.</p>	<p>Practice change ideas were implemented and management mistakes have been avoided through learning from the experiences of others.</p> <p>The experience of transforming Wilmot has been shared with more than 5,000 Facebook followers and 1,500 visitors.</p> <p>Strong mutually-beneficial social bonds have been formed and support good decision-making.</p>
Political and Institutional Capital	<p>Alasdair's experience in the financial sector inspired him to demonstrate that well-managed agriculture could be a sound investment with co-benefits including carbon sequestration.</p> <p>Stuart and Trish were motivated to find an "opportunity to create our own destiny": a property where they could influence decision-making.</p>	<p>Demonstrate the national and global value of cattle grazing for environmental and nutritional benefit to government, investors and community-of-practice.</p> <p>Stuart and Trish fully immersed themselves in Wilmot and "treated this place like we owned it".</p>	<p>Alasdair has been included in meetings with government re: the carbon sequestration potential of agriculture and believes that natural capital is being increasingly recognised as having value in professional investing circles.</p> <p>Alasdair recognised Stuart and Trish's hard work and commitment to the vision. He offered Trish a role with the enterprise and promoted Stuart to General Manager. He has now left most of the decision-making to Stuart.</p>
Cultural and Spiritual Capital	<p>The combined natural beauty and business potential of Wilmot motivated both Alasdair and Stuart to become involved with the enterprise.</p> <p>Alasdair is very motivated by innovation. He believes that there are always better ways of doing things.</p>	<p>Decision-making is based on trying to create an enterprise to suit the environment rather than attempting to change the environment to suit a desired enterprise. The decision-makers acknowledge the elements that are within their control and those that aren't.</p> <p>They have developed an innovative grazing management tool to assist in decision-making to improve on 'pen and paper' holistic management planning.</p>	<p>Alasdair and Stuart derive intrinsic satisfaction from spending time on Wilmot and seeing the positive changes they have made to the landscape.</p> <p>Maia Grazing helped them to make "really good decisions" and get through the last dry period. Alasdair believes it will help them to "do even better in the next dry period."</p>



Discussion

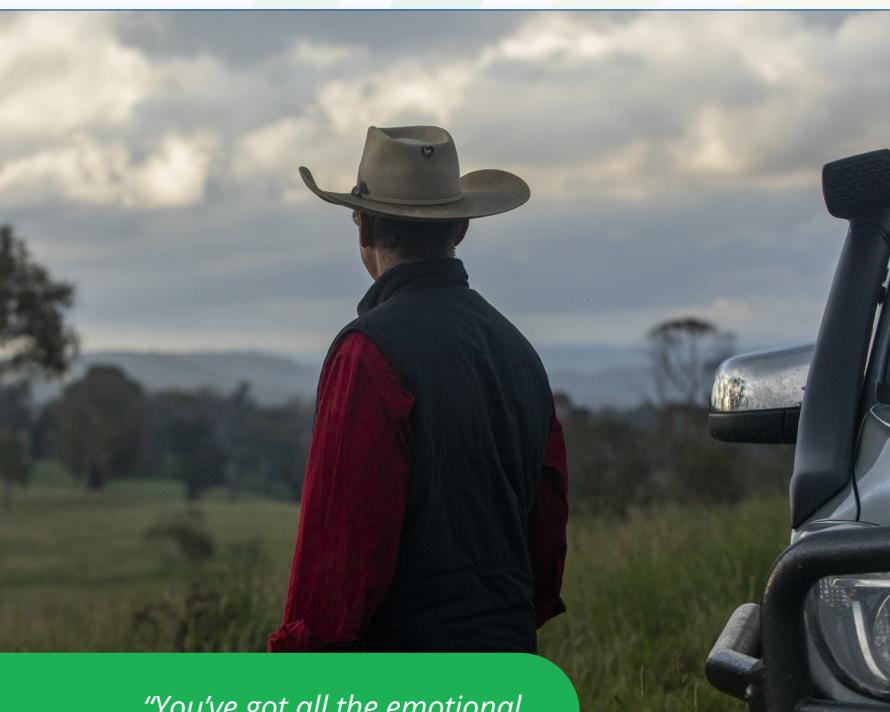
The primary decision-makers of the Wilmot property reported numerous positive social outcomes arising from their transformation to regenerative agriculture. These include emotional benefits, the confidence to plan and enjoy career and family life, wide social reach, improved personal relationships, political and institutional recognition, self-efficacy, innovation and a sense of life achievement.

Several useful social strategies were employed to enable these positive social outcomes as well as support the broader transformation process including engaging in two-directional social learning, hiring and developing passionate staff with a growth mindset, demonstrating the viability of the enterprise to government and financial investors, embedding decision-making within the landscape and fostering innovation. This discussion will consider these strategies and outcomes in their narrative context and through the lens of 'the capitals'.

As outlined in the conceptual framework (3.1), this report uses the definition of 'the capitals' provided by the association of Impact Assessment (Vanclay et al 2015). This definition considers 'the capitals' as generic metaphors that are useful for loosely conceptualising and analysing social resources or assets. For the purposes of this report, the social data has been analysed through the lens of 'the capitals' to determine key social strategies and outcomes associated with the case studies' transformation to regenerative agriculture.

The following sections explore key narratives of transformation associated with the key social strategies and outcomes for each 'capital' (3.4). While elements of financial, physical and natural capital do appear in the social narratives due to the nature of the systemic change in question, they are explicitly addressed in separate economic and environmental reports.

4.1 Human Capital



*"You've got all the emotional benefits... I love going to Wilmot... and seeing it, thriving, I love the place"-
Alasdair Macleod, Owner, Wilmot*

Human Capital includes elements associated with individuals such as their health and wellbeing or their skillsets and knowledge base (Vanclay et al 2015). For the decision-makers on Wilmot, the increasing economic and environmental resilience of the enterprise led to increased social resilience in terms of staff skills and engagement and the decision-makers ability to cope with difficult conditions (fig 13), optimism about their farming future (fig 14) and global life satisfaction (fig 6). This process is illustrated in the following narrative:

Alasdair was initially motivated to change his approach to farming by difficulties he encountered in managing the impacts of the Millennium Drought on his family farm near Yass. He purchased Wilmot, hoping to trial more drought resilient landscape management techniques and learn ways of minimising negative impacts in the future.

On Wilmot he deliberately built integrated ecological, financial and productive resilience into the enterprise. The success of these efforts means that Alasdair now experiences strong emotional rewards from his time spent working and living at Wilmot, see quote LEFT .

Photo by Mike Terry



The resulting resilience of the Wilmot enterprise also enables it to hire, foster and support staff and consultants with a passion for regenerative agriculture and a growth mindset. This means that staff in general are very engaged, with a good work-life balance and significant mentoring, training and development. The long-term stability of the system means that the General Manager Stuart enjoys a stable and rewarding livelihood and family life. He is able to confidently plan for the future,

proactively engage in his local community and experiences reduced stress during difficult times such as drought and bushfire, see quotes LEFT and RIGHT.

These narratives, along with the survey results, indicate a positive impact on elements of human

capital such as emotional wellbeing, skill development, coping abilities, optimism and overall life satisfaction. There appears to be a positive relationship whereby increasing the resilience of the agricultural enterprise has increased the social resilience of the decision-makers. This suggests that activities aiming to increase farmer wellbeing, skill development and resilience should consider strategies that target the resilience of the agricultural enterprise as a whole.

"[of the 2020 Bushfires] it certainly hurt us a lot more than others because we actually had grass in front of us that we'd been stockpiling...then in four hours half of it was gone.... it's pretty bloody devastating... we've been so careful about managing this landscape... and then something like happened was pretty bloody cruel... And we were so adamant about making sure we left our pasture plants in a healthy state such that they would recover as soon as it rained. And that's exactly what happened. I reckon we grew six months feed in six weeks, when it rained.... it was incredibly rewarding"

Stuart Austin, General Manager, Wilmot

4.2 Social Capital

Social Capital includes social structures and networks such as families and groups, as well as rules, norms, trust, obligations and reciprocity (Vanclay et al 2015). Social learning, the process of learning through the experiences and demonstrations of others, is a central focus for the Wilmot enterprise. This has resulted in improved personal relationships (fig 6) as well as strong social networks that have supported the transformation of the Wilmot enterprise. This process is illustrated in the following narrative:

Alasdair's need to find drought resilient solutions to grazing led him to set himself "the task of ...finding people that were doing this better". He spoke to regenerative farmers about their experiences and attended conferences in the United States with the Savoury Institute and the Grassfed Exchange. At the same time, Stuart was visiting and working on many different properties and attending as many field days as he could, learning by observation. This meant that when it came to implementing practice changes on Wilmot, they had a ready catalogue of ideas and were able to avoid the mistakes of others.

While Alasdair and Stuart worked through the practice changes they developed close personal relationships with each-other, the staff and the broader community of practice. This was significant, as Alasdair had found previous managers did not share his mindset and that this undermined the change process. Stuart also undertook the Executive Link program with Resource Consulting Service (RCS) which focussed on building boardroom style groups of mutually-advising farmers. These strong social networks built mutual trust and provided the support and social cohesion necessary for the transformation process, see quote RIGHT.

"I just didn't get on with [the previous farm manager]. That was really the problem that was happening at Wilmot... he reckoned that he knew all the answers...for my money, we didn't really start hitting our straps until Stuart arrived.... He and I just see eye to eye on everything."

Alasdair Macleod, Owner, Wilmot



After reaping the benefits of social learning and networks on Wilmot, Stuart was struck by the difficulties encountered by the conventionally farming local community during the most recent drought. He decided to contribute to the cause by holding a field day on Wilmot, in the hope of helping other farmers to learn how to 'avoid pain' in the future. Attendance surpassed expectations, with participants equally being farmers interested in regenerative agriculture and farmers looking for a way out of their current situation.

Stuart has since mentored numerous farmers through their own change processes, and the experiences of Wilmot have been shared with more than 5,000 Facebook followers and 1,500 visitors to the property.

These findings indicate a positive impact on elements of social capital such as personal relationships and social networks. The strategy of deliberately seeking social learning opportunities and socially cohesive staff appears to have supported the development of these networks as well as ensuring that the broader transformation process on Wilmot is as smooth as possible. The role of Wilmot in actively contributing to broader processes of social learning has reached the community-of-practice on a deep level through mentoring and exchange relationships, and a widespread level through social media and field days.

The experience of Wilmot suggests that both social learning and the development of social networks, can play an important role in supporting the individual and broader community process of transforming to regenerative agriculture. Furthermore, for the decision-makers on Wilmot, the process of transforming to regenerative agriculture and the associated necessity of seeking social learning opportunities and like-minded collaborators appears to have led to improved social networks and satisfaction with personal relationships (fig 7).

4.3 Political and Institutional Capital

For the purposes of this document, political and institutional capital refers to governance institutions and processes as well as other structures and processes related to power, regimes and agency/ self-efficacy (Vanclay et al 2015, Avelino 2017, Shirmer et al 2013, University of Canberra 2020, Scoones et al 1998).

The central vision for Wilmot is based around the demonstration of the political and institutional value of well-managed grazing e.g. through carbon sequestration. For the decision-makers of Wilmot, the pursuit of this vision also meant an opportunity to improve self-efficacy including an improved ability to make the right decisions about farm management (fig 12) and to achieve the things they want on their farm (fig 11). This process is illustrated in the following narrative:

Alasdair's background working in the financial sector inspired him to demonstrate that regenerative grazing could be a sound investment with nationally and globally relevant co-benefits including carbon sequestration and improved human nutrition.

In Wilmot, he set out to create an economically viable enterprise that produced livestock while improving the natural capital resource base, see quote RIGHT.

"The world is moving into a direction whereby, increasingly, natural capital is being shown to have a value. I feel that instinctively anyway, but increasingly, you're now hearing from global investors who are talking about natural capital return, alongside financial return... And the natural capital return could come in the form of carbon, it could cover the form of increased biodiversity, increase water quality. It could come in the form of a whole bunch of other things."

Alasdair Macleod, Owner, Wilmot

"as a pure financial investor you're not making a very good financial investment if the way you're farming is buggering up your main asset, which is your farm. You're going to be thinking about how you farm it in such a way that you're not just maintaining the efficacy of your asset, but you're thinking about how you improve it"-

Alasdair Macleod, Owner, Wilmot

Alasdair has since been included in meetings with government regarding the carbon sequestration potential of agriculture and believes that natural capital is increasingly being recognised as having value in professional investing circles, see quote LEFT.



Stuart and his wife Trish were inspired by Alasdair's vision when they were looking for an "opportunity to create our own destiny". Trish and Stuart wanted to find an enterprise where they could influence decision-making and implement the things they had learned around regenerative agriculture. Stuart and Trish fully immersed themselves in Wilmot and "treated this place like we owned it".

Alasdair recognised Stuart and Trish's hard work and commitment to the vision. He offered Trish a role with the enterprise and promoted Stuart to General Manager. Alasdair has now left most of the decision-making to Stuart, providing himself with the agency to choose his level and type of engagement, see quote BELOW LEFT.

Stuart has since invested significant time in mentoring and upskilled his staff into decision-making roles, further improving self-efficacy see quote BELOW RIGHT.

"I still want to be involved in the business, because I get a kick out of it, but essentially, Stuart's making the decisions."

Alasdair Macleod, Owner, Wilmot

government and financial institutions.

The decision-makers believe that they are making excellent progress toward their vision of demonstrating an economically and environmentally viable enterprise and are in talks with financial and government investors. This suggests that the strategy of creating a demonstration property to improve the political and institutional status of regenerative grazing enterprises appears to have significant potential. In pursuing this vision, the strategy of employing staff with a passion for regenerative agriculture and giving them decision-making power appears to be effective in improving self-efficacy (figs 11 &12).

4.4 Cultural and Spiritual Capital

Cultural and Spiritual Capital encompasses a person's sense of their role and greater purpose within the world. It transcends the separate capitals to take a holistic view and considers broader cultural influences as well as creativity and innovation (Vanclay et al 2015). For the decision-makers of Wilmot, the relationship between cultural and spiritual capital and the transformation to regenerative agriculture manifests as an increase in their satisfaction with what they are achieving in life (fig 8), a sense of stewardship for a place of natural beauty and power, and the development of innovative grazing management software. The following narrative illustrates this process:

Both Alasdair, Stuart and his wife Trish were struck by the natural beauty and business potential of Wilmot and this strongly influenced their decisions to become involved with the enterprise, see quotes RIGHT.

"I'm really making a point now of just getting out of their way and letting them do their job, which has enabled me to work on some of the bigger picture stuff; the five-year plan, the longer-term vision"

Stuart Austin, General Manager, Wilmot

"[Wilmot] is a really beautiful and unique part of the country, it's absolutely stunning... Why do people buy expensive paintings? Why do people buy houses in Sydney with harbourside views? Some people see beauty in a bunch of different things, I see beauty in the natural landscape and here was a really beautiful natural landscape that... we could also turn into a very good business."

Alasdair Macleod, Owner, Wilmot

"It was just the way the ad was worded, it talked about rotational grazing...[and] a few other things that sounded quite appealing. ... [I] went to look around, it was a spectacular place. It just looked amazing... and I said to Trish, "If we get offered the job, then we'll think about what we do, about our cattle and about your job," and she said, "Bugger that, if we get it, we're coming."

Stuart Austin, General Manager, Wilmot



Their resulting respect for the landscape and 'mother nature' led the decision-makers to base management around working with the whole system rather than against it, see quote [BELOW RIGHT](#).

While many regenerative or sustainable farmers see themselves in a stewardship role rather than a productive role (e.g. Shirmer et al 2013), Stuart and Alasdair retain a strong economic and productive focus to their enterprise, as discussed in the previous section. When the value that Stuart and Alasdair place on the landscape in its own right and on working within the natural system is considered as well, it suggests that they see themselves in both a productive and a stewardship role. As a consequence of this stewardship element, they derive intrinsic satisfaction from spending time on the land and a sense of achievement from seeing the positive changes they have made, see quote [BELOW](#).

"I'm just excited about the business growing... We started planting trees here three years ago... and every time we drive around and we see those trees just going gangbusters and, what they're going to look like in ten years, let alone what they look like already in three years..."

"And every year we come into Spring and you can see more and more species diversity. We can see our animal performance improving, animal health improve... [and] a team of really engaged people... excited about what their future holds...."

Stuart Austin, General Manager, Wilmot

In an effort to better work with the natural system in an economically efficient manner, Alasdair was inspired to develop innovative grazing management software called 'Maia Grazing'. He believes that there are always better ways of doing things and felt frustrated by the 'pen and paper' methods of early managers and surprised by the sudden loss of data experienced by a consultant due to technical failures. His understanding of how the innovation can help decision-makers to work within the natural system to achieve productive outcomes see quote [RIGHT](#).

"Respect mother nature ...and don't try and outsmart it... I see a lot of people try to create an environment to suite an enterprise or suit an animal or suit a business. That invariably hits hard times because the environment doesn't do what they thought it would do. So we are very conscious of creating a business and an enterprise that fits an environment."

"This is the environment that we've got, this is the landscape that we have.... There are things that are within our control and things that aren't and we can only manage for what we can control. The rainfall and the market are completely beyond our control. All we can do is manage for the hand we're dealt. It just comes back to mother nature...We can't do anything about what she wants to do. Hot, cold, wet or dry, she calls the shots and we've just got to manage for that."

Stuart Austin, General Manager, Wilmot

"How you manage your property when it's raining is important, but how you manage property when it's dry is really important. And that's what really tests your management skills, it tests your decision-making skills....

"Where most graziers get it wrong is that they've got their livestock, they've got a bit of grass in front of them and then, and then it stops raining. And the critical moment for managing a grazing property is about when you make the decisions to destock...and nine out of ten graziers make that decision too late. By the time they make the decision to destock, they've already grazed out all the grass, they that run out of feed in the paddock and they've got to start hand feeding.

"What we're trying to do is to introduce the system, whereby you make the decision before you end up in trouble, so you always have grass in front. Our philosophy and the philosophy of more regenerative graziers is the grass is more important than the livestock. You can always buy more livestock, but if you eat all your grass and you destroy your ecosystem, then it takes a long time for that landscape to recover. So, making decisions around when you destock is absolutely critical. And that's what the Maia tool is designed to do."

Alasdair Macleod, Owner, Wilmot



The software was developed, trialled and demonstrated alongside the decision-makers' efforts to transform Wilmot. The innovation has helped them to make "really good decisions" and get through the last dry period and Alasdair believes it will help them to "do even better in the next dry period."

These findings suggest a positive impact on elements of the cultural and spiritual capital of the decision-makers such as fostering innovations, the development of a strong sense of a multifaceted productive and stewardship role and a resulting sense of overall life achievement (fig 8). This suggests that the process of transformation to regenerative agriculture may also require transformations in the way farmers view their role, decision-making systems, and enterprise, a view supported by the findings of Massey (2013) in regards to widespread mindset shifts in regenerative farmers.

5. Conclusions

The primary decision-makers of the Wilmot property reported numerous positive social outcomes arising from their transformation to regenerative agriculture. These include emotional benefits, the confidence to plan and enjoy career and family life, wide social reach, improved personal relationships, political and institutional recognition, self-efficacy, innovation and a sense of life achievement.

Several useful social strategies were employed to enable these positive social outcomes as well as support the broader transformation process including engaging in two-directional social learning, hiring and developing passionate staff with a growth mindset, demonstrating the viability of the enterprise to government and financial investors, embedding decision-making within the landscape and fostering innovation. This following dot-points summarise the key findings arising from this case study.

Key findings

- The increasing economic and environmental resilience of the enterprise led to increased social resilience in terms of staff skills and engagement and the decision-makers ability to cope with difficult conditions (fig 13), optimism about their farming future (fig 14) and global life satisfaction (fig 6) – (See 4.1)
- The decision-makers' focus on social learning has resulted in improved personal relationships (fig 7) and strong social networks that have supported the broader transformation of the Wilmot enterprise. – (See 4.2)
- The pursuit of transforming Wilmot to demonstrate an economically and environmentally viable enterprise, has resulted in potential increases in status with financial and government institutions. This, and the associated strategy of employing staff with a passion for regenerative agriculture and fostering their decision-making power have also been effective in improving self-efficacy (figs 11 &12). - (See 4.3)
- For the decision-makers of Wilmot, the process of transforming Wilmot to regenerative agriculture has had positive impact on elements of cultural and spiritual capital such as fostering innovations, the development of a strong sense of a multifaceted productive and stewardship role and a resulting sense of overall life achievement (fig 8). - (See 4.4)



Photos by Mike Terry



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